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ABSTRACT

Results of the Office of Education's Bureau of Higher and Continuing Education's inspection of Howard University's Graduate School and the Ph.D. program are presented. The inspection was performed by conducting a survey of the administrative staff, the faculty, and student body, and by examining relevant facilities, laboratories, equipment, documents, reports and libraries. The 11 Ph.D. programs reviewed were: African studies and research programs, history, political science, sociology, English, mathematics, physics and astronomy, chemistry, zoology, physiology and biophysics, and pharmacology. Despite improvements in the programs, it is concluded that there still exists uneven support services, a need in several departments for additional senior faculty, a lack of sufficient student financial aid, a need to better develop the library, a need for additional modern equipment for the bio-sciences, and a need to give the Graduate School more authority in all phases of the admissions process. (SPG)

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REPORT OF THE SURVEY

OF

HOWARD UNIVERSITY

The Graduate School

and

Selected Ph.D. Programs

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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U.S. OFFICE OF EDUCATION

1976-77

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PREFACE

In recent years the Office of Education's Bureau of Higher and Continuing Education has had the responsibility for carrying out the annual inspection of Howard University as required by Congress since 1928 under Public Law 70-134. The inspection method adopted has been to conduct an in-depth survey of one particular aspect of Howard University's educational program each year rather than attempt to inspect the entire University annually. Teams, comprised mostly of Office of Education professionals, spend several days at the University meeting with members of Howard's administrative staff, its faculty, and student body to obtain a rounded view of the area being inspected. In addition, relevant facilities, laboratories, equipment, documents, reports and libraries are examined in this process. As a result of this procedure, a report emerges which, in large measure, reflects the views of all those involved.

The Office of Education has carried out the following inspections of Howard University during the last three years: Student Financial Aid Program (1973); the International Education Program (1974); The College of Medicine (1975).

This year's report is focussed upon the Graduate School and the Ph.D. programs. Since a similar report was prepared by an OE team ten years ago, it was decided to review the progress made during the intervening years by the University in furthering advanced study.

Ten years ago the doctorate was offered in eight different areas. Today it is possible to work toward that degree in some 22 areas. Since some of these areas have not yet produced doctorates, it was decided to select representative Ph.D. programs from the various Academic Divisions which have produced one or more doctorates and which have several candidates near completion of their work. In all some eleven Ph.D. programs are reviewed in this report. Most of these programs are well-established departments which have graduated students with the doctorate for many years.

The inspection team consisted of Office of Education professionals with training and experience in the fields covered. Those professional were assisted by an outside consultant, Dr. David Hanlon, Professor of Biochemistry, Dartmouth College School of Medicine, who inspected those Ph.D. programs related to the medical field.

A special note of recognition for his excellent performance on this survey is due to Dr. Louis Venuto of the Office of Education who has been responsible for the coordination in recent years of these annual reports and was responsible for the overall coordination of this report. As in the past, his educational and editorial expertise made a significant contribution to the total inspection. Dr. Richard Jorgensen of the Office of Education gave him special assistance.

The inspection team is appreciative of the fine cooperation given by the administration, faculty, and students of Howard University. In particular, we wish to thank President James E. Cheek and Vice President for Academic Affairs Lorraine A. Williams for their encouragement to this particular inspection. Further, we wish to acknowledge the specific and direct assistance provided by Dr. Edward W. Hawthorne, Dean of the Graduate School of Arts and Sciences and Dr. Charles A. Asbury, Associate Dean of the Graduate School for Academic Affairs.

Preston Valien

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AFRICAN STUDIES AND RESEARCH PROGRAM

I. Determinants of the Program (Direction)

Recognizing the need for greater interdependence among nations of the world in the pursuit of knowledge, and with a commitment to international education as clearly expressed in a document prepared by the Committee on International Education of the Graduate School and the Division of Development and University Relations, of Howard University in 1974, the Ph.D. Department of African Studies and Research Program is being redesigned and reorganized. The development of the African Studies and Research Program at Howard as an interdisciplinary program emphasizing research design and planning for problem-solving investigations and for producing unique capability in the way of development of programs related to international studies and in the general area of education is now under way.

A. Philosophy/Mission

The ultimate objective of the Program is to help revitalize, and make relevant to the African peoples the educational processes at Howard University by projecting it into the forefront of the total cultural aspirations of the people in the contemporary perspectives of international responsibilities. The Program is cognizant of, and also embraces the social, historical, economic, psychological, and ideological factors that connote the very essence of "Africanness" (Blackness). This "Africanness," besides the organic and superorganic dimensions, also envisions internationalism and humanism. The Program's great potential in humanism and

internationalism must lie in its dependence on its objective human creativity of African peoples all over the world, specifically the African Continent, the Caribbean, and the Americas. In keeping with the true ideals of Pan-Africanism therefore, as well as meeting the objective needs of all African peoples, the Program does not tolerate white racism or black chauvinism; but instead, it articulates the fundamental equality of all in respect to human personality and dignity. The Program therefore seeks to eliminate the old attitudes of historical submission and adjustment of the African peoples. It articulates the universal identity of the African peoples and identifies their common problems and enables thereby the building of a world in which Africans from the continent, Afro-Americans here in the United States and Afro-Caribbeans can live and share together as fellow human beings in a common setting.

1. Articulation

The Program seeks to minimize the trend towards disciplinary specialization while emphasizing vitality and scholarship. It seeks to enlarge research opportunities and teaching at Howard University and in Africa for faculty and students who are interested in the multiplicity of fields related to the study of Africa. The Program also seeks to provide, promote, and coordinate the training of African specialists with competence in the analysis of contemporary systems and processes in Africa for the development of models and projections which are to be used for comparative analysis and public policy-oriented research that is relevant to Africa. Three goals will govern the Program over the next five years - 1977 through

1982: (1) to raise the visibility of the Program via positive results on and off Campus; (2) to develop working relationships with other University units at Howard University, based on academic respect; and (3) to establish a research component within the African Studies and Research Program which will demonstrate the public policy of oriented research and planning by this Department as it relates to Africa.

2. Relevancy

Howard University, the Graduate School and Department of the African Studies and Research Program, are all accredited by the Middle States Association of Secondary Schools and Colleges and by the accrediting bodies of each of the professions for which training is provided. More than one-half of the nation's black population of physicians, lawyers, dentists, pharmacists, engineers and architects were trained at Howard University. The Department of African Studies, since its initiation in 1964 with African Languages as a major component, then in 1969 with the U.S. Office of Education (Title VI, N.D.E.A.) for support of African Languages and Area Studies Center, has reflected a steady pattern of growth since 1969.

Beginning September 1969, Howard University authorized the offering of the Ph.D. degree in addition to the Master of Arts degree and transferred the Program from the College of Liberal Arts to the Graduate School. It has remained with the Graduate School since that time.

3. Impact of the Ph.D. Offering

With the authorization of the offering of the doctoral degree in the

Department of African Studies and Research Program, beginning 1969, the Department was able to have its first graduate with the Ph.D. degree in 1970, and through the academic year 1976-77, the record shows a total of 27 persons holding the Ph.D. degree from this Program. These graduates have all been gainfully employed as professors in universities here and other countries while some are holding important government positions.

4. Department Commitment

Howard University, and the Department of the African Studies and Research Program, as a member of the Consortium of Universities in the Washington Metropolitan area, is committed to lead in African Languages and in Literature. At the moment, 10 different African Languages are offered and as time goes on, it is expected to offer even more. While doctoral students are required to be proficient in a Western Language they must also learn an African Language in order to be able to do their research. Hence, these African languages are taught to both graduates and undergraduates at Howard University, to employees from the Department of State who are being trained to serve in Africa as well as from other agencies like AID, etc. Because there are not enough Linguists per se on the faculty, the services of native born Africans have been used to teach these languages. They are called Teaching Assistants. However, all of these Teaching Assistants are themselves working for the doctor of philosophy degree.

B. Administrative Policies/Leadership

The African Studies and Research Program is administered by a

Director, recommended by the Dean of Graduate School and Vice President for Academic Affairs, and approved by the President of the University for the Board of Trustees. He is authorized to direct the Program sending his recommendations to the Vice President for Academic Affairs through the Dean of the Graduate School. In keeping with the duties surrounding the office of the Director, the University has established two positions of Program Assistants and that of a Departmental Secretary.

The University accepted the responsibility for graduate instruction in the African area with an understanding from the University Consortium that additional support will be provided for the development of research and teaching in this Program as these are considered important facets of African Studies at Howard University.

This unit, supervised by a director of African Studies and Research Program, reports directly to the Graduate School of Arts and Sciences. It is responsible with the Office of Admissions for the selection and admission of students entering the Program to seek the Master's or doctorate degree. Additionally, the Program:

1. Seeks to interface the Ph.D. degree program with other disciplinary departmental units;
2. Emphasizes its research component with the objective of establishing formal relationships with interested professional and international institutes and centers;
3. Establishes a Certificate Program in the Department of African Studies and Research Program; and

4. Encourages national and international scholars to associate with the African Studies and Research Program as Research Associates.

It is clearly evident that the African Studies and Research Program has well defined objectives through the next five years as indicated in a Five-Year Plan, 1977-82. However, these goals need to be implemented beginning with the academic year 1977-1978.

The efficiency in carrying out these planned projected programs will depend in large measure on the combined efforts of the Director and his faculty. It is hoped that, beginning with the academic year 1977-1978, a concerted effort will be made for the entire faculty to work together so that the Program can realize maximum efficiency.

Special programs will be developed between 1977-1982 for research and development, in which the following areas will be highlighted:

a. Research on a Bibliography of current research studies;
b. Preparation of a Directory of Grants available for Research Proposals;
c. Community Resources (student & faculty projects);
d. Employment Opportunities - setting up a directory of firms, agencies and other institutions with employment opportunities for the graduates of the African Studies and Research Program;
e. Community Requirements - Determination of local community requirements in terms of special educational programs, materials, reference materials, radio and television programs;

f. Community Education - (1) Preparation of self-instructional language materials of basic courses in African languages that can be used for independent study by faculty or students preparing for field trips, other colleges or universities at which instruction in the language is not available, or private industry with offices in Africa. These courses should include programmed materials with recordings that can be copied and distributed on request. Priorities for preparation of materials will be supported by community requirements outlined above; with modifications in terms of national requirements.

Research proposals presented by the students will provide a medium for initial discussion of research proposals at the regular seminars established for this purpose, and at which time, all interested persons, especially social scientists, and members of government and other organizations concerned with development and policy are welcome to attend.

In addition to these regular program seminars, specialized workshops and conferences will be held to disseminate research findings in an effort to promote knowledge of specific areas of development policy and so stimulate important further research.

The Department of the African Studies and Research Program has admitted more doctoral students, over the past 4 years, than orginally planned. There have not been, therefore, enough full-time professors to instruct and supervise the work of the doctoral students. In the area

of economics, for example, for the past four years the Department has had only the services of a half-time Assistant Professor, while in Anthropology, for 2 years the Department has had a Visiting Professor half-time and for the last two years, a Visiting Lecturer. The Program needs a full-time professor in these two fields as well as a full-time staff of qualified professors in all the other areas, i.e., Linguistics, Sociology, History, Political Science and Literature. It is believed that the Program is understaffed at the present time, but, with the present salary scale as established, it is difficult to attract top-ranking scholars to the Program.

In talking with the Director of the Program, it was obvious that he has definite ideas regarding how he wants the African Studies and Research Program operated. He evidently is a strong administrator and is determined to achieve an exemplary program which can serve as a model. Apparently, he has the support of the University administration, because he is in the process of completely revamping the Program's faculty, reducing the number of graduate students, and implementing research requirements for both faculty and students.

He is concerned with the low percentage of tenured faculty, a faculty staff ratio that was about 9 (for all graduate students), the dearth of research and published writing by the faculty, and the physical facilities which house the program.

Faculty recruitment is somewhat of a problem, but it is anticipated

that the full complement will be added by the time school opens in fall 1977.

C. Faculty

The faculty of the African Studies and Research Program is undergoing a significant change. During the 1976-77 academic year, the faculty totaled 13, including the Director, 2 full professors, 1 visiting professor, 1 associate professor, 3 assistant professors, 2 part-time assistant professors, 1 instructor, and 2 Lecturers. Only three, including the Director, were tenured. Because the Director is in the process of developing a comprehensive plan for the Program which will require that all faculty have acquired a terminal degree and have published extensively, only six (6) of the 13 will be returning in 1977-78, (the Director and the other 2 tenured professors, 1 part-time assistant professor, 1 visiting professor, and 1 assistant professor on a one-year appointment).

Nine faculty members have the Ph.D or other earned equivalent degrees. Since Howard University is the only institution which offers a Ph.D. in African Studies, the program faculty, while required to have a terminal degree, may have as their specialty area such fields as economics, economic development, history, etc., but must have written extensively on Africa and have acquired expertise in a focus area on Africa through research and be able to speak an African language. During the year the faculty published 1 article, 1 book, submitted 4 articles and books for publication, and made 9 oral presentations. In addition, the Program had a research

grant in process ($135,717) and submitted 4 research proposals.

For the 1977-78 academic year, it is anticipated that each of the projected 15 faculty members will have acquired the doctoral degree, and will have experience in research writing, will be able to speak at least one African language and be employed full-time.

The Director is of the opinion that the current average of a 9-semester-hour teaching load, with some as high as 12, has hampered the research of the faculty and lessened their accessibility to the students. Plans are being made to reduce the teaching load to an average of 6 hours over the next two years. Currently, the Director does not teach, but he hopes to remedy this by rotating the Directorship.

It is projected that all faculty members in the African Studies Research Program will serve as Ph.D. advisors and will supervise student dissertations. Each professor is expected to supervise at least 5 students, one of whom should be a doctoral candidate.

In 1974, the African Studies and Research Program printed "Seminar Papers on African Studies" (Edited by Sulayman Sheih Nyand), which contains papers written by the faculty. With the exception of this document, very little research has been done by the faculty. This fact may be attributed to the heavy teaching load and number of students supervised by each professor. The lack of research by professors is recognized as a deterent to the program. Thus, the Director is actively recruiting new faculty members who have published in a number of areas.

There were eight committees for 13 faculty members until 1976. The Director found attendance at assigned committees to be impossible and responsibilities not carried out by the committees. These eight were the Executive Committee (which is now defunct); Admissions; Comprehensive Examination Committee; Fellowships and Research Grants; Curriculum; Program; Appointment Promotion; and Tenure. Next year (77-78) he hopes to reduce the number of committees. The power of the Executive Committee was transferred to the tenured faculty in 1976-77. Membership on committees is attained by appointment by the Director.

Faculty members are encouraged by the Director to make themselves easily accessible, for consultations, to both the Director and the students of the Program. With an anticipated lower teaching load, accessibility of faculty is expected to improve, as the Director feels that close consultation between faculty and students is very important. Since the Director is extremely enthusiastic regarding excellence for the Program, he stated that faculty commitment to the program must be "total." He wants a cadre of academicians who, after being involved in the Howard Program, will be able to go on and establish similar programs in other higher education institutions and in government agencies.

II. Enrollment

A. Of the 90 graduate students enrolled in the program in 1976-77. 35 were enrolled in the Ph.D. program. The majority of the doctoral students (19) were from foreign countries (Nigeria, 5; Egypt, 4; Congo, West Africa, 1; Ethiopia, 2; Britain, 1; Martinique, French West Indies, 1; Iran, 1; Sierra Leone, West Africa, 2; Ghana, West Africa, 1; and South Africa, 1.)

The Ph.D. candidates are predominantly male, with men accounting for 24 of the total. Some of the doctoral candidates are inactive or are pursuing their degree on a part-time basis. In accordance with recent departmental policy, students will be asked to make a statement of intention regarding the expected completion of their work, or withdraw from the program.

The objective is to reduce the total number of students matriculating for the doctoral degree in African Studies and Research.

The enrollment of students over the next three (3) years will be stabilized to a maximum of sixty (60) students:

M. A. Students ---------- 40

Ph.D. Students ---------- 20

This will be accomplished by having students enroll in the Program only once a year -- during the Fall Semester -- and only ONE out of every three openings which follow graduation of present students will be filled until projected total is established.

Candidates for Degrees

Students at the doctoral level will be required to complete all

requirements for the Ph.D. degree within three (3) years after completion of their comprehensive examinations; these stipulations will be followed strictly over the next three years. Students will also be allowed only two (2) failures of the comprehensive/qualifying examinations. The second failure will automatically terminate the student's association with the Program, as stipulated by the Graduate School policy. This criterion will be strictly followed.

C. Admissions Policies

Students graduating with the M.A. degree from the Program wil not automatically enroll in the Ph.D. Program. Rather, they will be evaluated carefully on the basis of their academic preparation, future career plans and goals, and comparative standing to other non-Howard University graduates seeking admission before being allowed to enter into this second degree program.

Objective: to infuse new students and new ideas into the Program and to increase the total number of terminal M.A. degrees at Howard.

Applicants for admission first pass through the central admissions office of Howard University. After satisfying the general requirements, applications are sent to the Director's office where the department admissions committee reviews all completed applications. The Director knows of no quota for U.S. versus foreign students but admits that perhaps the central University admissions office may take citizenship into consideration.

D. Student Aid

The Director, ideally, would like to see each doctoral student receive financial assistance. However, monies are not available for such an undertaking. Funding beginning MA students with University aid is presently a priority. Ph.D. students must look to public and private funding agencies for assistance. The Director, personally, is influencing and helping those Ph.D. students working on their dissertations to find outside support.

To receive an award, the student must demonstrate financial need as well as academic excellence (3.5 GPA). The financial assistance provided to the Program by the University includes four graduate assistants receiving $4,200 each, seven teaching assistants receiving $4,200 each, three research assistants receiving $7,150 each, two NDFL fellowships totalling $8,744 and one conference award fellowship for $15,000. Two of the graduate assistants are MA students while all of the other awards went to Ph.D. students.

The Director feels that $4,200 is inadequate assistance for a student living and attending a school in Washington, D.C., where the cost of living is extremely high.

III. Curriculum/Program

A. Course Offerings

Ph.D. students take a minimum of 42 credit hours; 9 hours in African Studies seminars, 30 credit hours related to Africa distributed between two other departments, and credit hours for Research Seminar I. A residence requirement and a knowledge of a language appropriate to the area of

specialization is mandatory in addition to knowledge of a world language. A dissertation on an African topic based on field work in Africa is required. Departmental assistance is provided for local supervisory arrangements.

The Director feels that the course offerings were well suited to the Program's goals of training a cadre of academicians able to set up similar programs in other academic institutions and governmental units. However, he feels that the teaching method left a lot to be desired. The stand-up lecture course should give way to a discussion type atmosphere.

B. Experiential Learning

There is no required "internship" at the doctoral level. The Program is attempting to institute an internship at the MA level. The field experience in Africa, the availability of African lecturers on campus, scholars and practioners, and the African diplomatic community in D.C. serve as experiential learning for the students.

C. Research Options and/or Requirements

Each Ph.D. student is required to complete a dissertation of publishable quality on an African topic based upon field work in Africa. The Program provides faculty and outside assistance in teaching the particular language prior to the field research as well as general supervisory arrangements.

The research requirement appears to be realistic and adequate in light of the particular goals of the Program and interest of the students, many of whom are native Africans.

D. Evidence of growth/modification of the Program

In order to demonstrate a viable program with great potential, the Program is reducing the number of students enrolled at the MA and Ph.D level. By increasing the number of faculty, the Director sees a smaller student/faculty ratio. He anticipates doctoral students turning out dissertations of quality and becoming publishable books. After this strengthening period, he hopes that the program will attract monies from African countries, private and public agencies, and University funds which will then allow the number of faculty and students to grow.

The Director is cognizant of the negative image that has been projected by the program due to its lack of productivity. But, the University has no objection to funding the Program as long as it is producing trained academicians of high quality.

E. Problem Areas

Space is a problem for the program. With an addition of two professors and a reduction in the number of students, the University seems willing to wait to see the progress of the program before the program is moved to larger quarters.

HISTORY

The Howard University Department of History in 1976-77 consists of 23 full-time and four part-time faculty, and an enrollment of 77 students in pursuit of advanced (M.A. and Ph.D.) degrees in history. A vigorous, knowledgeable and highly articulate Chairman of the Department, Dr. Joseph E. Harris, and a distinguished veteran Director of the Graduate Program, Dr. Martha S. Putney, have sought to capitalize upon a timely and significant Ford Foundation grant (which served, for 1971-73, as a pivotal period in the development of the graduate history program at Howard) by bringing about changes in the character, scope and availability of curricular offerings at Howard, and by working to enhance the quality of the degree programs in history at the University. Currently the Department of History offers the M.A. and Ph.D. degrees in the history of the United States, Africa, Modern Europe, East Asia and Latin America/Caribbean.

The Howard University Department of History was established in 1913 and the Ph.D. program--one of two in history at traditionally black institutions of higher education in the United States--was inaugurated in 1962. The Department's first Ph.D. was awarded in 1966; by 1974 it had awarded as many as ten degrees. In the 1975-76 academic year there were three recipients of the Ph.D. Currently there are 44 students enrolled in the Howard Ph.D. program, eleven of whom have been "advanced to candidacy." The objective of the Howard University graduate program in history is "to provide in depth training in specialized areas of knowledge and to sharpen the students' perception and use of the tools for historical research

and teaching." Guiding and supervising the graduate students in accord with this fundamental objective are Drs. Harris and Putney along with five other members of the History Department which together constitute the Graduate Faculty (formally established in 1975-76). In offering candidates for the Ph.D. specialization in the history of the United States, Africa, Modern Europe, East Asia, or Latin America and the Caribbean, several combinations of course clusters within the designated field may be used to concentrate on certain areas of interest, such as Afro-American, urban or comparative history. The student is also given the opportunity to "sample" courses in other departments and schools of the University, while the consortium of Universities in the Washington area allows the student to profit from courses, library and other resources available at institutions of higher education and government installations in the Washington area.

The graduate program is administered by a Director, elected by the Department of History from those faculty members holding the rank of associate professor or above. In 1976-77 there were among the history faculty 4 members with the rank of full professor, 7 associate professors (all eleven of whom possessed tenure), 8 assistant professors, 2 instructors and 5 lecturers. The primary duty of the Graduate Program Director at Howard is to serve as a resource person for both faculty and students in the facilitation of communication regarding student records, admission requirements, major/minor course distribution, credit allocations, graduation requirements, current regulations and policies, proper procedures and deadlines. The Graduate Program Director oversees the admission of

students to the Master of Arts and Ph.D. programs. In general, admission requirements for the Ph.D. program are consonant with those established for applicants to the M.A. program. Applicants who have earned a bachelor's degree or its equivalent are considered if they have completed an undergraduate major in history with a grade of B or better and a cumulative average of 2.7 or better. Non-history majors may also be considered if their average in the major field is B or better and their cumulative average 2.7 or better. Students whose undergraduate training does not meet the above requirements or who have received degrees from non-accredited schools may be granted provisional admission to the university for one semester, at the end of which students with such provisional status may be considered for admission to the M.A. program if they have completed successfully nine hours of course work and received favorable recommendations from the professors in whose courses they have registered. Students who have done work beyond the B.A. degree at another university are considered for admission to the M.A. program if their level of performance has been satisfactory. Those students pursuing a M.A. degree in history at Howard must seek formal admission to the Doctor of Philosophy program before continuing work for the doctorate. Three letters of recommendation submitted with application for the Ph.D. program must come from Howard University faculty members. Students who have earned a M.A. degree in history at another university, or a Master's Degree in a field other than history, are considered for admission to the Ph.D. program upon submission of proof that work completed for their degree has been equivalent to the requirements for the Master

of Arts degree in history at Howard, or upon completion of those requirements. Upon admission to the Ph.D. program each student is assigned an academic adviser by the Director in consultation with the student and in consonance with the student's expressed field of interest. Students are expected to meet with their adviser at least once during each semester.

Students seeking a Ph.D. in history at Howard University must complete a minimum of 72 hours, which may include credit earned at the master's level. Various factors may make it necessary for a student to go beyond the 72-hour minimum, such as the advisability of further training in some area of fulfillment of a four-semester full-time residency requirement prescribed by the Graduate Council. Satisfactory completion of coursework is only one of several requirements for the doctorate. The student must pass the qualifying examination (a written comprehensive examination), and fulfill the foreign language requirement prior to admission to candidacy for the degree. An acceptable dissertation and successful defense of it at a final oral examination complete the requirements.

In the Ph.D. program all students are required to choose one major field of specialization and three separate minor fields (two of which must be in history fields other than the major, and the other one of which may be in an additional history field--other than the fields of specialization offered by the department--or in any one related discipline, in an area studies combination, or in any distribution of relevance to the student's program. Such options for the third minor provide flexibility in that they permit students to specialize further in history or to select courses of

interest from a variety of departments. Twenty-one hours constitute a major field and 12 hours a minor field, but additional hours may be allotted a student depending on the number of hours he has earned in thesis or dissertation writing courses. Content courses exclude courses in methodology, special skills, thesis and dissertation writing. Two seminar courses beyond the master's level are required. Upon application to the Chairman of the Department and with the approval of the Director of the Graduate Program, a student may pursue independent study under a graduate faculty member who agrees to direct the project for a maximum of 12 hours. All students preparing a dissertation are required to enroll in dissertation writing. While no more than six credit hours in dissertation writing may be counted toward the degree, a student must continue to enroll in the course as long as he is using university facilities or receiving regular supervision in the dissertation.

As part of the requirements for the doctorate and before admission to candidacy a student must demonstrate reading ability in two languages approved by the Department. A specific skill related to the student's research (such as computer language or statistical analysis) may serve as a substitute for one of the foreign languages. Finally, for admission to candidacy the student must pass a written qualifying examination designed to test his (a) specialized knowledge of the subject matter, bibliography and important unresolved problems within his major field, and (b) general competence in two minor fields of his choice. The examination is divided into three sections: one eight-hour section for the major field and one four-hour

section for each of the two minor fields.

Given the above requirement for the Ph.D. and recorded details concerning the Department of History, its administration, faculty and policies, it is possible to conclude in the spring of 1977 that the program is functioning quite well. The stated requirements for the Ph.D. at Howard University may be described as conventional, reasonable for the participants engaged in the program, and suitable in the light of the institution's mission and historical development. The Ph.D. program in history is viable, fundamentally sound, generally relevant to the expressed needs and interests of the historical profession. The products of the program--mostly young black Americans but a fair number of foreign students and white Americans as well--appear generally to have had a good experience during the course of their (average) five years of work for the degree.

Extended interviews with the Chairman of the Department, the Director of the Graduate Program, members of the history faculty, current and previous (recent) enrollees in the Ph.D. program at Howard have yielded the following generalizations, observations, recommendations concerning the program--its requirements, administration, achievements and promise.

1. The philosophy/mission of the Howard University history program--for all levels (undergraduate majors, the Master of Arts degree program, the Ph.D. program)--should be more carefully thought through by members of the Graduate Faculty and articulated in a clear, forceful statement reflective (a) of priorities in the profession (perhaps determined in consultation with the American Historical Association and the Organization

of American Historians); (b) of the unique and positive strengths of the presently assembled faculty in the Department of History; (c) of the historic mission of Howard University; and (d) of the challenge presented by the inexorable development of the university as a citadel of learning especially attractive to citizens and subjects of the Third World.

2. Administration of the Department and of the Graduate Programs presently rests in highly capable hands. Policies for the Graduate Program are explicit, generally realistic and humane. They are also subject to revision annually and are currently undergoing considerable rethinking. The administrative assistance available to Drs. Harris and Putney is rendered by a number of young ladies whose cheerfulness, competence and diligence have contributed decisively to the relatively smooth operation of vital offices, the workload of which is considerable. The workload and demands upon the time of both Drs. Harris and Putney are substantial if not excessive. Dr. Putney has a full teaching load, supervises the progress of several Ph.D. students, and has responsibility for general supervision of the office of the Graduate Program. Professor Harris has teaching and seminar duties as well as Ph.D. advisees and numerous committee assignments and general administrative responsibilities for the Department of History. While both offices appear to be functioning well, in spite of the heavy demands upon the leadership, efforts should be made in the months ahead to relieve Drs. Putney and Harris of a part of the administrative load that has befallen them.

3. The faculty of the History Department may be described as com-

paratively young, generally well qualified and committed to quality (albeit somewhat conventional) instruction and research. Teaching and committee assignment loads may be too heavy. With only seven of 26 in the department members on the Graduate Faculty, supervision of enrollees in the doctoral program may be considered to be uneven and problematical. One professor is supervising as many as eleven students at various stages of their work toward the doctorate. The Ford Foundation grant of 1971 enables the Department to strengthen its faculty resources--this effort to expand and "upgrade" the history faculty continues.

While it cannot be said the faculty roster presently contains the names of historians of national prominance, a highly regarded faculty is being built.

The University will need to reexamine its recruitment and retention-of-faculty policies if it seeks to build a first-rate Department of History. The strongest areas--United States, African and Caribbean/Latin American history--have some noticeable gaps. More could/should be done to strengthen curricular offerings in urban history, American constitutional history, legal institutions, women's history. The Department should do more to strengthen its already strong (and most appropriate) ties with the Caribbean; recruitment of an instructor of Brazilian history ought to be a top priority for the Department. The addition of two or more African specialists to the faculty would help to strengthen the already fine resources available in that area of instruction. The Department presently runs the risk of

spreading itself too thin. Its offerings in the areas of Modern Europe and East Asia are sporadic and probably unsatisfactory given evidence of the kinds of resources available in those areas at other universities in the Washington area. Greater reliance on the consortium and what may be available through it in these important areas would seem a logical alternative for Howard University's Department of History in the years ahead. Desired expansion and/or reinforcement of faculty resources in the areas of United States and black history, African, and Latin American/Caribbean could justify the gradual phasing out of resources in East Asia and Modern Europe at Howard University.

4. The enrollment of 40-45 students in the Ph.D. program seems about right: manageable and challenging to the faculty and administration of the University. The 44 presently enrolled represent a good mix, mostly black Americans, some foreign. There are about 8 white Americans presently enrolled in the program. About 15% of the enrollees are on leave from traditionally black institutions of higher education. (These are the more "mature" students). Between 15-20% of applicants to the Ph.D. program are turned down; about 40% of those enrolled are "recruited" from traditionally black institutions in the South.

The students interviewed in this survey generally spoke enthusiastically about the program. They felt it had been an intellectually rewarding, challenging experience. (At least one member of the faculty, however, felt strongly that the Ph.D. program needed to be more intellectually rigorous.) Instruction was good, research options appropriate, and opportunities were

exceptional--given the availability in Washington of resources within the consortium, the Library of Congress and the National Archives. There is some feeling that enrollment could be more geographically representative of the United States as a whole--at present and in the past Americans have tended to come from the South and Southeastern United States. This may be partly the result of the Department's recruitment efforts that have tended to be restricted to traditionally black institutions of higher education in the South. The university would do well to go beyond the U.S. South in its recruitment efforts.

In contrast with Ph.D. programs in history throughout the country in the mid-1970s, the placement of Howard University graduates has not been a terribly serious problem. Demand is still high for the products of the Howard University Ph.D. program--the tendency is for the young scholars to seeks and win placement in conventional teaching positions at colleges and universities as concerned about affirmative action as they are about quality instruction in history. There have been some recent exceptions: (a) a 1974 graduate is now with the Smithsonian Institution; another 1974 graduate works for the U.S. Department of Agriculture; at least one Ph.D. candidate presently works at the National Archives and plans to remain there upon completion of her Ph.D. requirements; a 1976 graduate is working full time as a Research Associate at the University's Moorland-Spingarn Research Center. While the graduates from Howard have apparently not had a serious problem securing jobs, the Department of History is wisely exploring other options for students outside of the traditional history

teaching positions at American colleges and universities.

Probably the most vexing problem facing the History Department is that of student aid. Financial problems of the students are very serious and may be the leading factor causing dropouts. There are presently about 15 fellowships available to first and second-year doctoral students--awards that were originally established with the Ford Foundation grant and which are now sustained by HEW funding. There are assistantships also available--but to obtain an assistantship a student must be enrolled in coursework (whether he or she needs the credits or not). The "financial crunch time" for students is usually in their fourth or fifth year of work toward the degree.

5. The curricular offerings of the Department of History are generally conceded to be fairly good in breadth, range, quality of instruction. As with most universities, courses vary in character, suitability, relevance, and quality. The students interviewed generally spoke highly of the quality of instruction and range of offerings available to them, although they admitted some gaps in the curriculum. Consortium opportunities were not always available to them because of a cost differential. The curriculum tends toward the traditional/conservative side; and there are gaps even and especially in the U.S., African, Latin American/Caribbean areas which are generally regarded as the strongest fields of concentration at Howard. There is a need for greater flexibility in the Ph.D. program--especially in the area of course requirements. There is a need for greater coordination between course offerings, and for greater distinction between the M.A. and Ph.D. level offerings. The 72-hour requirement should be modified. Further

consideration might be given to a more flexible schedule of course offerings--e.g., evening, weekend, summer period offerings. Perhaps greater consideration should be given to the concept of experiential learning as an alternative to strict compliance with the course-completion requirement of the Graduate School. The ties with the National Archives, the Woodrow Wilson Center and other institutions in the Washington area might be strengthened. Dr. Harold T. Pinkett of the Archives has worked to promote a relationship between the University and the Archives, and this should be reinforced in the years ahead. The consortium might be made to work more effectively on behalf of Howard University candidates for the Ph.D. in history--some means must be found to make up for the cost differential in course offerings of the consortium.

6. Program support services and facilities are fairly good. While there appears to be general agreement among faculty and students alike that the University's Founder's Library is inadequate to the needs and interest of the Ph.D. enrollees, the availability of library resources within the consortium and the accessibility of the National Archives, the Library of Congress and other resources in the Washington area make up for any deficiencies on the Howard University campus. And a wonderful, unique center of scholarship exists right on the campus--convenient to Ph.D. students; the Moorland-Spingarn Research Center. This Center collects, preserves and makes available for study thousands of artifacts, books,

manuscripts, newspapers, photographs, prints, recordings and other materials documenting from antiquity to the present history and culture of black people in Africa, Europe, Latin America, the Caribbean and the United States. It is recognized as one of the largest and most comprehensive repositories of Howard University. The library, manuscript, archive and museum facilities of the Research Center--physically a part of the Founder's Library Building (but destined perhaps within five years to be situated in a new facility on the campus) are maintained for the scholarly study of black history and culture. All Howard University students, faculty, staff as well as scholars and the general public are free to use these resources. Budgetary constraints placed upon the Center and its staff have restricted some of the services of the Center for students of history but there is no question of the importance and general usefulness of the Center and its holdings. Its full potential--destined to be great--has yet to be realized.

In general, academic facilities at the University are most adequate to the needs of the graduate students in history. The Ford Grant of 1971 enabled the Department of History to improve the physical appearance and utility of Department offices and classrooms so that today they constitute quite an attractive place on the campus. Apparently there is still need for a "graduate student lounge" on campus, and the University could/should do much more for married as well as unmarried students on behalf of their need for suitable housing in the vicinity of the campus.

In June 1974 the Howard University Department published A Directory of Black Historians as a part of the Second Series of Historical Publications of the Department. Earlier, in 1973 on the occasion of its sixtieth anniversary, there was published Michael R. Winston's fine piece The Howard University Department of History, 1913-1973. This series of historical publications provides an opportunity for the faculty and students to publish the results of their research. Research grants for this series are available from the Faculty Research Program in the Social Sciences, Humanities and Education at Howard University. In the Directory there are listed 230 practicing black historians in the United States--of whom at least 53 have or have had an association with Howard University. In addition to the Department's research publications, there have been held annually since 1970 the Rayford Logan Lectures that have very nicely served the Howard academic community. Past lectures in the series, delivered by John Hope Franklin, C. Vann Woodward, and distinguished graduates of Howard University, Mary Berry, John Blasingame, et.al., have been made available in pamphlet form. An annual seminar in diplomatic history, honoring Dr. Merze Tate, will be instituted in the 1977-78 year. In addition, prizes are awarded annually by the Department to a graduate and undergraduate student of history submitting the best essay in the field, Such programs, services and activities have served generally to enhance and enrich the Ph.D. program in history at Howard University.

POLITICIAL SCIENCE

The Howard University Department of Political Science has the appearance in 1976-77 of a well-established, fairly strong academic department with a good range of specialists in the field among its faculty. It may be further described as an essentially traditional/conservative academic department, medium-sized with 28 full-time faculty (reasonably "young" with at least one-half tenured and over 70% in possession of an earned Ph.D.) and over 60 students on the graduate level, 30 of whom are presently working toward a Ph.D. in Political Science. Since 1964, when the first Ph.D. in Political Science was awarded by Howard University, there have been two to three recipients of the degree annually. The majority of enrollees in the Ph.D. program at Howard have been black Americans while roughly one-third of the enrollment have been foreign stucents generally representative of The Third World.

Howard University is one of two predominantly black institutions of higher education in the United States offering the Ph.D. in Political Science. The other is Atlanta University in Georgia. In contrast with the situation at other universities around the country in recent years, the placement of those earning the Ph.D. in Political Science at Howard University has been no problem as graduates appear to be very much in demand. Most seek and win teaching positions at American colleges and universities; some have preferred upper level positions in government and public administration.

In the 1970s, with political and governmental activity among black

Americans and persons from Asia, Africa, the Middle East, the Caribbean and Latin America at seemingly an all time high, Howard University's Department of Political Science faces, in the words of the Chairman, "an unprecedented challenge and responsibility." The Department seeks to interpret this ferment, this activity, and to prepare young men and women--particularly minorities--for full participation in it. It seeks especially to promote students' leadership and research roles in the political activity of the times and to strengthen the ties between Third World peoples and the black community of the United States.

The Department of Political Science offers graduate work leading to the Master of Arts and Doctor of Philosophy degrees, as well as the Master of Arts in Public Affairs designed to prepare students for professional careers in international affairs, public service, with national, state or local government, and overseas administration. The regular M.A. program is designed to prepare students for research positions, junior college teaching, and to serve as a first level of training for the more advanced work of the doctoral program. The objective of the Ph.D. program is to develop scholars who manifest a high level of excellence in teaching and research. There are seven fields of concentration: (1) American Government and Political Behavior; (2) Public Administration and Public Policy; (3) Comparative Government; (4) International Relations; (5) Political Theory; (6) Quantitative Methodology; and (7) Black Politics.

In addition to formal classroom study, students of political science

at Howard University have an opportunity to enroll in independent study courses, to engage in programs of work and study in the community, and (for M.A. students only) to serve as interns in the government. They are also able to take advantage of educational resources in a variety of special areas. The Joint Center for Political Studies, which is operated by Howard University and the Metropolitan Applied Research Center provides technical assistance to black elected officials throughout the country and at the same time affords research and internship opportunities for students. Howard is a member of the Consortium of Washington Universities, whose other members are American University, George Washington University, Georgetown University and Catholic University. Students in the Ph.D. program in political science may take courses at any of the member institutions as they can also use certain facilities, including--in particular--libraries. Students and faculty benefit greatly from the use of the Library of Congress, departmental and agency libraries (such as State, HEW) located elsewhere in the Federal Government, the National Archives, special liaison with members of the Congressional Black Caucus and other members and committees of Congress, as well as unique relationship with various agencies in the executive and legislative branches of the government.

The University maintains a stringent admissions policy toward applicants to the Ph.D. program in political science. The Department of Political Science has established a Committee on Admissions and Awards which reviews applications for admissions. Students with a master's

degree (or its equivalent) from a fully accredited institution may be admitted into the Ph.D. program upon submission of the necessary documents (transcripts of studies, at least two letters of recommendation from members of the academic community familiar with the applicant's record, a brief autobiographical sketch and a statement of the applicant's educational and professional objectives) and approval of the Committee on Admissions and Awards. Applicants must have maintained a cumulative grade point average of at least 3.5 in all work above the baccalaureate level. Students who have engaged in previous study at Howard must submit letters from three or more members of the Department of Political Science. Students with a BA degree who possess unique qualifications may be admitted to the doctoral program if they request it in their initial application and if their admission to the program is approved by the Committee. Admission to the MA program is not equivalent to admission to the Ph.D. program--M.A. degree candidates seeking admissions to the Ph.D. program must request approval from the Committee on Admissions and Awards. For the Ph.D. program beginning in the fall of 1976 there were 12 applicants in political science; five were accepted and started Ph.D. work. A recruitment effort is undertaken on a regular basis by Howard University. A special effort is made to recruit eligible and interested parties from the predominately black institutions of higher education in the Southern region of the country.

The Ph.D. program requirements in political science may be termed stringent but conventional: (1) a minimum of 72 hours beyond the baccalaureate degree in courses yielding graduate credit (including a

required course in Scope and Methods); (2) demonstration of the ability to use at least two research tools among the following: a foreign language, statistics, computer language, quantitative methodology, testing methods; (3) the passing of written qualifying examinations in four fields of concentration, one of which may be in a related discipline such as history, sociology or economics. Candidates for the Ph.D. must have a 3.5 average or better for all courses taken as a part of their graduate work prior to the taking of the written qualifying exa inations. A Ph.D. student may only be admitted to candidacy after having fulfilled the research tool requirements, passing the qualifying examinations, receiving the recommendations of the Department of Political Science and securing the approval of the Graduate Council. As the final requirements for the doctorate, the candidate must submit a dissertation representing an original contribution to the field of political science, and successfully defend the work in an oral examination. A candidate must secure formal approval of the dissertation topic from the graduate faculty adviser who has agreed to serve as his or her dissertation supervisor. In consultation with the supervisor, the candidate requests two additional graduate faculty members to serve as readers. This becomes the candidate's Dissertation Committee (the composition of which is subject to the approval of the Chairman of the Department and the Director of the Graduate Program). The oral examination of the dissertation is administered by a panel consisting of three graduate faculty members of the Department of Political Science (one of whom is the dissertation supervisor), one person from outside

the Howard University Community, the Director of the Graduate Program and the Chairman of the Department.

The general requirements for the Ph.D. in political science at Howard appear to be very much "in line" with those representative of the more prestigious, better known and longer established Departments of Political Science in the United States, such as at Yale, Johns Hopkins, the Universities of Chicago, Michigan, California. The range of course offerings and fields of concentration in political science at Howard may be considered to be very good in comparison with other institutional offerings around the country. The University is unique in that it is one of only two predominantly black institutions of higher education in the U.S. offering a Ph.D. program in political science, and it is special in that it offers as one of seven fields of concentration, Black Politics. This has attracted a fair number of students to Howard University, just as the department's special strengths in public administration, public policy, international relations and comparative government (Third World Politics) have tended to attract an unusually large number of foreign students to the campus and to the Ph.D. program.

In the spring of 1977 the Ph.D. program appears quite alive and well--from the vantage point of the students involved and members of the Howard University faculty associated with it. The Chairman of the Department, a specialist in intergovernmental relations and urban politics, holds a high regard for the members of his faculty. He speaks of them and of their accomplishments with considerable pride--Howard University Political Scientists

have had as many as four books published in recent months. Dr. Margeurite Ross Barnett wrote The Politics of Cultural Nationalism in South India, published by Princeton University Press; she also co-authored a book entitled Public Policy for the Black Community, published by the Alfred Publishing Co. of New York. Dr. William Ellis of the Department is the co-author of a study on airport access traffic, entitled Forecast of Landslide Airport Access Traffic at Major U.S. Airports to 1990. Dr. Archibald Singham of the Department is the author of From Bandung to Colombo, recently published by the Third Press Review Book Co. of New York. Other members of the faculty are nationally known in their special fields: Professor D.G. Kousoulas in comparative politics; Professor Vincent J. Browne in public administration; Professor Brian Weinstein in international relations--Africa; Professor Robert E. Martin in American Government and Black Politics; among others.

An exceptional product of the Howard University Ph.D. program, Dr. Hilbourne Watson, is presently serving as Director of the Graduate Program in Political Science. Watson brought to this important and sensitive position the perspective of a foreign student (who could have attended any number of universities in the U.S. but chose Howard), the discipline and spirit of a recent graduate student, the activism and wisdom of a leader in the Political Science Graduate Student Association of Howard University (established in 1971 and serving since as an "agent of change" at Howard Unversity). As President of this group in 1971-73, Watson took the lead in bringing about some dramatic changes in the Ph.D. program. His tenure as a Ph.D. student

at Howard coincided with the award of a significant, substantial and timely Ford Foundation grant to the University for the purpose of upgrading its programs in history and political science. The Ford grant enabled the Department to expand the Political Science faculty and administrative staff, to award graduate fellowships to prospective black Ph.D.'s, and to improve its facilities for graduate education at Howard. Watson initially sought an MA degree at Howard; the Ford grant changed his sights and with assurance of fellowship aid pursued the doctoral degree. Assumption of the presidency of the Graduate Student Association gave Watson the opportunity to effect some changes in the then "archaic and inflexible" requirements for the Ph.D. in Political Science. Independent study, reduction from five to four the number of special fields of competence; modification of the format of comprehensive examinations, and of the research requirements for the degree--these and other graduate student demands were acknowledged and subsequently adopted by the Department.

In general the members of the Political Science Department faculty have seen fair growth and steady improvement in their Ph.D. program: in range and scope of curricular offerings, in opportunities available to students for research and general assistance, and in the gradual modification of degree requirements. The Department appears, in 1977, to make every effort to assure the quality of its products. The students confirm this in their judgment of the program and in their generally high regard for the faculty, and their high morale. They see it as a tough program, with stiff but fair and generally sensible requirements. They recognize the weaknesses in the program:

some gaps in faculty strength, inadequate library and (possibly) other support services, the 72-hour course work requirement in need of modification, the desirability of having a choice of either written or oral qualifying examinations. But there definitely exists at Howard a good, mutually productive relationship between faculty and students--a prime requisite for any Ph.D. program of merit.

SOCIOLOGY

I. DIRECTION OF PROGRAM

The doctoral program in sociology at Howard University was started formally in 1974. A program leading to the master's degree has been offered for some time, thus providing a good basis for developing the Ph.D. program. It is moving slowly, but with care and study. As a result, no student yet has been awarded a doctoral degree in sociology; however, it is expected that the Ph.D. degree will be awarded in the fall of 1977 or spring of 1978.

Well defined objectives has been developed as a result of considerable deliberation by faculty members and others during the past ten years. They include:

1. To provide competently-trained manpower for teaching and research positions in public and private academic institutions.
2. To train graduate students in the sociological analysis of urban social structures, especially the minority urban community.
3. To provide graduates, especially those from minority groups, with research skills that will contribute significantly to the formulation and implementation of social policies.

The main fields of interest which provide the focus of the doctoral program are: (a) urban studies and demography, (b) race and ethnic relations, and (c) medical sociology. Efforts also are being made to strengthen the program in social psychology, deviance and social control and comparative sociology.

The objectives and fields developed for this program provide the bases

of an impressive program. With the support of the faculty, the Department Chairman has been able to begin a student and faculty recruitment program, and to secure a developmental grant that is supplemental to the regular budget of the Graduate School for the Department of Sociology. Policies are being established as the Ph.D. program becomes more of a reality.

FACULTY: The Sociology Department is now in the process of selecting a distinct high level faculty to conduct the doctoral program. At present, there are six (6) full-time staff members holding the rank of professor in the program. There are rigid selection and appointment procedures that are used to screen candidates for the Graduate School. They include, among other things, academic status, research and publications, previous positions, and evaluation by appropriate councils.

The staffing pattern of the Sociology Department for 1976-77 included: Professors - 6; Associate Professors - 4; Assistant Professors - 7; Instructors - 1; Lecturers -13.

The desired teaching load in the Department is: six (6) hours teaching plus four (4) student advisees at the graduate level, and nine (9) hours of teaching plus a minimum of four (4) student advisees at the undergraduate level. A recognized problem is the lack of an adequate number of well-qualified senior staff members in some of the proposed fields, i.e., Social Theory, which creates a shortage of advisers for Ph.D. candidates in those fields.

To encourage the faculty to undertake research and publication, a Summer Research Program has been developed. Graduate students also may attend and those who do are provided the opportunity to gain experience in research requirements under the guidance of faculty members.

Faculty members are expected to serve as advisers to all Ph.D. candidates, that is, to be available to assist the candidates in the selection of their courses, research projects and with the preparation for the preliminary and comprehensive examinations.

II. ENROLLMENT

During the 1976-77 term, there were 15 full-time and 6 part-time students enrolled in the Ph.D. program. (There were 55 enrolled in the master's program.) None of those in the doctoral program was expected to complete their program during this year. With the limited faculty, care must be taken to restrict the number of Ph.D. students until adequate qualified staff is appointed to provide the individual student counseling necessary.

Considerable time has been devoted to procedures for recruitment and admission policies. Because the Ph.D. program is in the developmental stage, the quality of those who apply may be limited as there are well established programs being offered now in other universities in the area. Policies for admission to the program and to candidacy for the degree, therefore, have been established to correspond generally with those used by other universities. Points considered are: (a) the number of quality point average for admissions, (b) course requirements for specific fields, (c) examinations, (d) language, (e) oral and written examinations, and (f) a dissertation.

STUDENT AID: The Department provides financial support through two kinds of programs: (1) graduate fellowships carrying stipends usually of $5,200; (2) graduate assistantships, paying approximately $4,000. During

1976-77, there were six (6) assistantships and seventeen (17) fellowships. This number of fellowships was made possible by a grant from the Ford Foundation which funded twelve (12) of the 17.

Regulations have been developed which specify the bases for the awards, i.e., the length of time the student can expect to receive the stipend, and the standards required for retaining the assistance. To quote from their Report:*

> The assignment of financial assistance will be governed by, in order of importance, a student's ability, apparent professional commitment, and financial needs. Ability will be judged both from the applicant's scholastic record and the recommendations supporting the application. Professional commitment will be indicated by the applicant's professional objectives in his/her chosen discipline; and financial needs will be considered on the basis of the applicant's financial report(s).
>
> Awards are made for one year only. The renewal of financial assistance is subject to the recommendations of the faculty members with whom the student has worked, and the approval of the Committee on Admissions and Scholarships and the Chairman of the Department. Specific criteria for renewal of financial assistance are: (1) maintenance of a grade point average of 3.5 or above, (2) satisfactory progress toward the degree for which the applicant is working, (3) satisfactory fulfillment of the duties or other conditions for financial support, and (4) eligibility for financial assistance under the time limitation set forth below.

*1975-76 Annual Report of the Department of Sociology and Anthropology, submitted to the Ford Foundation, August 31, 1976.

Unless the following time limits are individually waived by vote of a majority of the faculty members of the Department, financial assistance will be granted for no more than:

1. Four (4) semesters for the entering B.A. working toward the M.A.
2. Four (4) additional semesters for the entering M.A. working toward the Ph.D. (M.A. earned in this Department).

The entering B.A. thus may have a maximum of eight (8) semesters of support toward the Ph.D.

3. Six (6) semesters for the entering M.A. working toward the Ph.D. (M.A. received from another institution and/or a field other than sociology.)

Time limits on financial assistance do not imply that a student is assured of completing the degree program within the prescribed time limits, nor do they imply a limitation on the time a student may spend in obtaining the graduate degree(s).

Students receiving the awards must be in full-time residence (12 credits for the M.A.) and during the period of the award must not hold any employment either full-time or part-time, except with the written permission of the Chairperson of the Department.

Students on financial aid must not have more than one incomplete course per semester.

Students receiving financial assistance will be assigned to one or more professors for practical training which may include leading student discussion groups, and assisting members of the faculty in research and related work. The training will involve ten to fifteen hours a week.

The average cost for a student is approximately $7,000-8,000 per year. A full-time student, therefore, must be in a position to provide the difference between the amount of the fellowship or assistantship and the total costs.

Ph.D. Candidates' Views of the Program: The candidates' views are varied, but strong on each of the following points.

There is a feeling that there is need for strengthening the quality and quantity of the faculty members in the doctoral program. Some students have interests in fields other than those now included or emphasized in the Department. They also feel that there are not enough faculty members of high level status and quality to provide them with the guidance that is needed. Some feel that certain faculty members might be required to offer an additional course in order to provide broader coverage of certain fields.

Because the program is in the developmental stage, the candidates recognize the need for change and refinement in the administration and requirements of the Department. Yet, those who entered the program at the beginning feel that they are being penalized by changes in regulations and policies.

Due to the access to the College of Medicine, the program in Medical Sociology, like that dealing with urban studies and demography, and ethnic relations will provide ample job opportunities when the students have completed the program for the degree.

In addition to staffing, the Ph.D. candidates consider the lack of adequate facilities to be one of the most severe problems. They believe

that a center with library facilities, laboratory, space for seminars and group meetings would add greatly to an environment for a productive program. The administration is aware of the lack of adequate facilities and some steps are being taken to improve the physical conditions.

III. CURRICULUM PROGRAM

As a developing program, care has been taken to limit the number of fields in which the students can concentrate. As the faculty increases, it is hoped that a broader coverage can be undertaken. Other departments are available now which offer supportive programs, such as the College of Medicine which provides research and experimental learning experiences for those involved in the program.

Study has been made to assure that the number of hours to be taken in the various fields is adequate. There is evidence of growth and modification of the program through appropriate planning.

The major problems are those of inadequate number and quality of staff, and the lack of space and facilities needed for unifying program objectives.

IV. PROGRAM SUPPORT

Plans for converting one floor of a building to a center for the Department's use are underway. This will make it possible to have publications, periodicals and other reference materials, including some media resources, available for the doctoral candidates' use.

Students in the Department may request permission to take courses at other universities. When the courses are deemed appropriate and have the approval of the candidate's advisor or advisory committee, permission will

be granted. This practice utilizes further the resources of the other universities.

The Founders' Library, on Howard's campus, has an acceptable collection of publications and resource information pertaining to the field of sociology. There also is a Data Processing and Computer Center on campus which can be used by faculty and students. The Department of Sociology provides desk calculators that can be used for programs in research methodology and for carrying out research projects.

THE GRADUATE SCHOOL OF ARTS AND SCIENCES

The newly organized Graduate School of Arts and Sciences began a restructuring process in 1974-75 with the following major objectives: Howard University has the responsibility to create an intellectual milieu for faculty and students to become competent scholars, teachers and researchers. With the moral and financial backing of the University, the Graduate School of Arts and Sciences shall set these goals: (1) to increase the number of graduates capable of assuming roles of leadership in every field of human knowledge; (2) to improve the philosophical coherence of the graduate program; (3) to contribute to an atmosphere that nurtures talent for identifying major problems and arriving at solutions; (4) to augment the size of the faculty and supporting staff; (5) to raise the level of faculty performance; (6) to provide adequate library and physical facilities for professional growth; and (7) to establish an international community of scholars.

The Advisory Council for Graduate Education has as its purpose: ".... to advise the Dean on all matters governing graduate education. It shall also formulate policy (e.g., certification and evaluation) and promote high standards within the Graduate School."

The Council is composed of "the Dean of the Graduate School as chairman; the President of the University, Vice President for Academic Affairs, Vice President for Health Affairs as ex officio members; the Chairpersons from each of the five (5) divisions; and the Directors of the Institutes and Centers."

The Sociology Department through graduate fellowships and assistantships provided by the Graduate School assists Ph.D. candidates in meeting their financial obligations. Some assistance comes from the budget of the Graduate School, and some is provided by the Ford Foundation. It is hoped that the Ford assistance will be absorbed by the regular budget when that grant is terminated.

There is a student advisory procedure established within each Department that has individual faculty and committee counseling support. The lack of sufficient number of senior Graduate School faculty members, however, is viewed as a problem by some of the doctoral candidates who desire a closer working relationship with the advisers.

Academic Facilities: Along with the limited number of faculty members, there are inadequate accommodations. There is a need to improve the housing of the Department. More office space for faculty, laboratory space, seminar and conference rooms, and a departmental library should be made available.

These needs are recognized by the University's administration and plans

have been developed to provide for some of the facilities within the next two years.

The location of the University is such that there is a wealth of related agencies and institutions, Government and non-Government, which can and are being used by the Department to strengthen its program. The faculty should be commended for developing good working relationships with these and other outside resources.

Summary: The Sociology Department has undertaken to provide a program of study that is commendable. The efforts made to obtain outside financial support has placed the Sociology Department in a more favorable position than most of the other Departments in the Graduate School. Such outside funding helps to provide research opportunities which are basic to the Ph.D. program.

The two outstanding problems are (1) that of insufficient senior faculty, and (2) lack of space. The administration recognizes these problems and is making plans to provide additional space which will be more centrally located and make it possible to bring together faculty and resources. This should make for a more closely organized Department.

The Graduate School has a top salary level that can be used to attract senior faculty, once adequate office and laboratory space are available. Efforts, therefore, should be made to recruit enough senior staff members for the Graduate School faculty and that of the Department to provide the quality and experience needed to strengthen the program.

The role of the Director of the Graduate Program within the Department

should be strengthened in order to free the Department's Chairman of many duties that he has now to assume.

Because of the shortage of Ph.D. graduates, particularly of minority groups, in this field, Howard University can provide a great service and meet a great need by continuing to develop this Ph.D. program. More and continued support should be provided.

ENGLISH

I. Determinants of the Program (Direction)

A. Philosophy/Mission

The Department of English at Howard University has expressed a commitment to excellence in its graduate program. The program, both in current practice and as planned for the future, is clearly articulated and seems appropriate to the needs of the students and those of the academic world at large in this country. It is also relevant to conditions in the "real world" -- as relevant as a graduate program can be in our rapidly changing contemporaneous scene. The lively, alert, interesting personalities in the English faculty, with their rich variety of backgrounds and experiences of international scope, keep this department from the isolation of an "ivory tower," such as still tries to survive on a few campuses. A viable department must maintain contact with its surrounding community, and this department endeavors to remain viable.

The activities and aims of the graduate program are set forth in a current 11-page document, "Graduate Study in English at Howard University." Additional details on current operations and on plans for the next five years are presented in logical succession in a memorandum of March 30, 1977, from The Chairwoman to the Dean of the Graduate School.

With a view to the enrichment of its graduate offerings, the department initiated at the beginning of the 1976-77 academic year the restructuring of its graduate program in English. The department has planned to revise and strengthen this program in at least three phases. At this date they

are in Phase One, which consists of defining and setting forth a rationale for graduate study in English, as well as of establishing statements of policy. Such statements will include prerequisites for admission to candidacy, requirements for the Master of Arts and the Doctor of Philosophy degrees, procedures for the assignment of advisers, and descriptions of the duties of graduate assistants.

Phase Two will focus on the curriculum.

Phase Three will concentrate on evaluation (i.e., type, format, and scope of examinations, grading, etc.)

Since the above areas are intricately linked with one another, implementation of one part cannot be carried out in complete isolation from the others. Members of the Graduate Faculty are making and will continue to make a concerted effort to marshal all available resources to accomplish the ends stated.

COMMENTS ON THE PH.D. PROGRAM, DEPARTMENT OF ENGLISH, HOWARD UNIVERSITY

The graduate professors of English have committed themselves to prepare students to become competent scholars and teachers, as well as to function effectively in non-academic positions in which knowledge and skill in the use of English language, grammar and rhetoric are essential, such as general writers, writers of "how to" manuals, journalists, researchers for contract organizations, and writers of government position papers. To help students achieve these goals, the department offers a curriculum which consists of a wide choice of courses in the traditional fields of concentration in

language (including linguistics), literature, and criticism. These courses are supported and amplified by extensive offerings in closely related cognate fields, such as history, classical studies, and modern languages and literatures. In addition, graduate students majoring in English may now undertake serious research and comparative studies in Afro-American literature and in the little-known but serious literatures of the Caribbean countries.

B. Administrative Policies/Leadership

With a view to more efficient administration, the Graduate School was recently reorganized into two separate divisions. The Department of English forms a part of the Division of Arts and Humanities, which likewise includes Philosohpy, General Humanities, and Fine Arts. The department has strong, disciplined leadership in the personality of the Chairwoman. She also serves as the Chairman of the Division of Arts and Humanities.

Communications within the Department of English seem good, in spite of a difficult, almost chaotic physical layout, in which there appears to be little hope of immediate improvement. There is ready access to the Chairwoman. Brief conversations with faculty members reflect generally good morale and a respect for one another's status and achievements.

The Chairwoman shares responsibility for policy matters with the graduate faculty, which meets at regular intervals. Members are consulted on matters of Ph.D. dissertations (including committee responsibilities to the candidate), standards of performance in course work, construction of examinations and other forms of educational measurement (including the special English

Proficiency Examination), duties and responsibilities of graduate assistants, and general matters of curriculum development, such as the "General Course in Methods of Graduate Study and Thesis Writing for the Graduate School," required of all M.A. candidates.

Under the general heading of Problems and Concerns, the most obvious and acute need is for more space, space specifically planned for the needs of the English Department. The highest priority is for a special room of at least classroom size that can be used exclusively for the graduate program. The Department envisions it as a room for seminars, colloquia and small conferences, and advisory center, and a committee meeting room. Graduate students in English in need of special assistance from a faculty member or on a workshop project would use this room as a place of study. Provision would also be made for the housing of appropriate research materials in this special room. It seems problematic that one room could provide for all these needs, but a start must be made somewhere.

As in the case with the humanities in general, classes in English are held in a number of different buildings on all parts of the campus, wherever space happens to be available. The University is so crowded that during a typical weekday it is hard to find any classroom not in use. Office space is likewise very severely limited. The senior professors in particular need offices where they may meet advanced students or visitors in privacy. Ideally, the Department of English should have a building of its own, housing offices, classrooms, a seminar room and a departmental library.

C. Faculty

The following numbers of professors are accredited to the Graduate Faculty of English. (As in most institutions, some of these people teach undergraduate as well.)

Professors: Full-time 3; Part-time 1. In addition, there will be a writer-in-residence next fall who will rank as a senior professor.

Associate Professors: Full time 3. A fourth will be added next fall.

Assistant Professors: Full-time 13. An additional assistant professor will begin her duties next fall.

All of the above persons are holders of an earned Ph.D. Of the associate professors, one holds a Ph.D. from Howard University. Of the assistant professors, two recently completed the Ph.D. at Howard. The others have varied and substantial experience and hold doctorates from the following well-known, accredited universities: Brown, State University of New York at Buffalo, The Catholic University of America, Cornell, Harvard (2), University of Illinois, Indiana University (Bloomington), Universty of Maryland, University of Minnesota, State University of New York, University of Oregon, Stanford, and Yale.

All full-time senior professors and associate professors in the Department of English are tenured.

The English Department includes 18 persons ranked as "Instructor" who do not teach on the graduate level.

In addition to the above tabulation, during the past two years there have been two part-time graduate faculty members with earned doctorates. Likewise, three full-time lecturers and two part-time lecturers are accredited

to teach graduates as well as undergraduates. Four of these five hold earned doctorates from the following universities: Cornell, Harvard, University of Pittsburgh, and the Urban University of Rome, Italy. The fifth, who lectures in poetry and creative writing, holds an M.A. from the Breadloaf School of English, Middlebury College.

A number of the graduate faculty originally came from other English-speaking countries, including Guayana, India, and Jamaica.

Faculty members without administrative responsibilities do not generally teach more than 12 semester hours (four three-hour courses). The average number of advanced Ph.D. advisees per faculty member is currently no more than one. (See later explanation.)

Faculty members are encouraged to do research and to submit their writing for publication. The Graduate School as a whole, however, does not operate on a "publish or perish" basis. This is to their credit--they feel an obligation to serve their students first. Effective teaching is a high priority.

Publication in the learned journals associated with the broad field of English is highly competitive in this country. Even when an article is accepted, there is often a wait of a year or two before it actually appears. Articles and books by the English Graduate Faculty have been appearing in recent years on a regular basis. This is their record for the current academic year (1976-77): articles published, 6; books published, 2 (including a book of poems); and articles submitted, 13.

The Chairwoman, who is a well known Renaissance Scholar, has several

published studies to her credit, including the following CLA Journal, Vol. XIX, June 1976: "Shakespeare's Use of Eth and Es Endings in the First Folio" and Walt Whitman Review, Vol. 21, No. 4, December, 1975: "Moments of Silence in Leaves of Grass." She is currently serving on the six-member Folger Shakespeare Library Fellowship Selection Committee.

The English Graduate Faculty has made plans for quantitative and qualitative growth during the 1977-82 period. They have requested the Graduate Dean to approve the appointment of ten additional faculty members to serve in the graduate program, in addition to one writer-in-residence for each academic year from 1977 to 1982. This writer will deliver graduate lectures, conduct a writers' workshop and while at the University, will write and publish works which it is hoped will attract students and other scholars to the Department.

If funds are available for the appointment of sufficient additional staff, the Department hopes to initiate and strengthen still other programs during the academic years 1978 to 1980: (1) a Renaissance Studies Program, (2) an American Studies Program, and (3) an interdisciplinary program in linguistics.

Since the Department is at present understaffed at the upper ranks, as indicated, there is a dire need for the addition of at least two senior professors at $30,000 per annum, one for academic year 1978-79 and the second for academic year 1979-80. Also needed are three associate professors at $20,000 each, one to be added each year for the next three years. Three assistant professors have also been requested at $17,500 each, one for each

of the next three years. The Department believes that these additions are essential if it is to function at its maximum capacity. They will help to assure continuity as the Department loses members through retirement, resignation, or severance.

The observer's visit revealed that the highest priority staff need is for an Administrative Assistant to the Chairman at $14,824. This person will coordinate information, reports and schedules of activities and will disseminate materials and keep statistical records pertaining to the Expository Writing Program, as well as to other graduate programs in the Department. This assistant will also keep up-to-date records and files for the overall graduate program.

Another high priority need is for a Research Associate at $20,032. As the Department increases its emphasis on research and attempts to attract needed assistance through grants from various sources, the need for a Research Associate will grow. This person will collect and classify appropriate statistical information and will help coordinate information concerning potential sources of grants.

II. Enrollment

Seventy-one graduate students are enrolled in the English Department as of May 1977, compared with 69 for the previous year. Twenty-seven are male and 44 are female. Nineteen are foreign. Thirty-eight are enrolled for the Ph.D. the majority of these are in a three-year program and have not yet completed the M.A. Only a small number of the Ph.D. candidates have reached the dissertation stage where they need repeated and regular contact with their adviser. This is why the average load of Ph.D. advisees has been

reported as not much more than one per faculty member.

At present, this number of graduate students seems manageable in proportion to the number of professors accredited to the Graduate School. As these students advance, however, and more are needed, the additional faculty members requested will clearly be needed to teach, provide guidance and maintain standards.

C. Admission Policies

Graduates of accredited colleges and universities who have been admitted to the Graduate Schools of Arts and Sciences may be accepted by the Department as candidates for the degree of Master of Arts. Admission to candidacy will be valid for only three calendar years. Students wishing admission to candidacy must secure an admissions form from the Office of the Dean. Before admission is granted, a student must have completed 12 credits in graduate courses with satisfactory grades.

If the student has not been an undergraduate at Howard University, the Department carefully evaluates his transcripts before admitting him to candidacy. Letters of recommendation must accompany these transcripts.

III. Program Support

A. Library

Founder's Library, the main library of the University, is well known as being one of the two richest depositories of materials on Black literature and Black origins in the United States. The collections of African and Caribbean background books, monographs, periodicals and

pamphlets is very impressive. Further, the African-American Studies Center, which occupies its own building, has rich library resources.

Founders Library is a large and substantial building in traditional style, with fairly adequate study space. One special room is open for study 24 hours a day. The Library has adequate collections of the British and American classic through the end of the nineteenth century. It has a very good special theatre collection (the Channing Pollock Collection). More money is needed to purchase contemporary literature of the period since World War II.

Professor Lettie J. Austin and a group of graduate assistants are cataloging and classifying all the holdings in Afro-American and Caribbean Studies. Within a year the Department hopes to offer a full major in Caribbean Studies.

Valuable nearby research resources are the Library of Congress and the priceless Renaissance and Elizabethan holdings of the Folger Shakespeare Library.

Other facilities and courses are available through the Consortium of Universities. Under the Consortium, the American University, The Catholic University of America, The George Washington University, Georgetown University and Howard University cooperate, along with three associate members, D.C. Teachers College, Gallaudet College and Trinity College, have agreed to share their facilities, and give students at any member university the opportunity to take courses offered by the other seven.

B. Special Features of the Graduate Program in English

The English Department has been sponsoring a special evening lecture series which has enriched the formal program and attracted sizeable audiences. During the first semester, 1976-77, four separate evening lecture-seminars were held, with time for discussion afterward. During the second semester nine special lecture-seminars were scheduled, some of them "back-to-back," i.e., two lectures in an evening. Occasionally, as in the case of the annual Charles Eaton Burch Memorial Lecture, a distinguished scholar is brought from outside. This year a new three-day "Humanities Colloquium" was held from April 26 through 28, featuring talks and informal discussions with two distinguished writers. It was made possible by the Andrew E. Mellon Fund.

C. Relationships with Students

This year ten graduate students in English received university-sponsored research grants, two received fellowships from the National Fellowship Foundation in Atlanta, and two received substantial grants from the Andrew Mellon Foundation. Four students received special "Graduate Honors" at Commencement. As stated earlier, the University is eagerly seeking additional sources of aid for graduate students.

Morale seems very good among students. All indicated satisfaction with their counseling and said they have ready access to their advisors. Their main problem seem to be those of space for study and research, which are faced by the University as a whole.

MATHEMATICS

The Ph.D. program in mathematics was inaugurated in 1976. The M.S. program in mathematics is now in its 50th year.

In spite of the fact that there is an ample number of Ph.D. programs in mathematics across the country, there are two good reasons for the establishment of the Ph.D. program at Howard. First, it is the only Ph.D. program at a predominately black institution, offering more opportunities for black Ph.D. candidates to work under black advisors with whom they may feel more comfortable. Second, a Ph.D. program is also a necessity if a university is to attract top scholars to its faculty and retain them.

FACULTY

The inauguration of the doctoral program has required strong support from the administration of the University, and this support has been enthusiastically given. This kind of support will be needed in the next several years and is expected to continue. The number of full-time faculty increased from 26 in 1975 and 30 in 1976. The support of the administration of the Graduate School for this program has been effective in enabling the department to attract one established research professor, whose activity in publishing in differential equations has provided the department with additional strength in this area of analysis, and has also brought to the faculty two young mathematicians, Dr. James Curry and Mr. Gerald Chacere.

The additional financial support provided by the Graduate School was necessary to achieve this strengthening of the faculty in applied mathematics. Other areas are continuing to grow as is indicated by the appointment of Professor James E. Joseph, a strong research topologist and

Dr. Rada Higgins whose research is in real analysis.

The research activity of the faculty has increased significantly in recent years. Whereas there were only 8 research papers published in 1965, there were 23 in 1975 and 30 in 1976. There is also a weekly seminar featuring a presentation of one of the faculty or an invited guest.

The fine mathematics faculty at Howard University should be further strengthened by the addition of new senior staff in the coming year.

FACILITIES

The present housing of the Department of Mathematics is modern and only two years old. A colloquia room, library, and computer terminal and duplicating room are in the office area.

Although computer facilities are available, service and assistance in operating them are not available to department members but ought to be. Furthermore, a graphical display system or plotter is badly needed.

There is also a lack of copying facilities. The department needs a copying facility of its own.

STUDENTS

To be admitted to the Ph.D. program, a candidate must pass a qualifying examination, with the master's degree giving conditional admittance. Admission to candidacy corresponds to the successful completion of the preliminary examination and the language examination. Students who do not have the master's degree may be admitted to the graduate program but their work must be the equivalent of the master's degree.

There are only two doctoral students currently enrolled in the Ph.D.

program, one full-time and one part-time. This number should increase in future years.

Graduate fellowships and assistantships carrying stipends from $4,000 to $5,000 are available in the Department of Mathematics, Financial aid in the form of fellowships, grants-in-aid, or tuition remission is available through the Graduate School Office. An "A" or "B" average is required to hold one of these awards.

LIBRARY

A department library-room has been set up to make somewhat more convenient library usage by both faculty and mathematics majors. A set of Mathematical Reviews is maintained along with a selected collection of advanced books.

Except for the above, all library holdings are in the Founder's Library, which is the main University library. These holdings, consisting of over 3,000 mathematics volumes and 87 mathematical journals, are presently scattered on three floors, one-quarter of them classified under the Dewey Decimal System and the rest of them under the Library of Congress System. All books should be classified under the Library of Congress System as soon as possible.

PHYSICS AND ASTRONOMY

The Howard University Department of Physics and Astronomy is housed in a building constructed in 1903 when the needs of graduate physics departments were considerably different from what they are now.

The Department has eighteen full-time faculty members of whom eleven are professors, two are associate professors, three are assistant professors and two are instructors. In addition, there are four part-time lecturers and four adjunct professors. Those at the rank of professor and associate professor also have tenure. The tenured faculty have primary responsibility for the direction of graduate students. The remainder participate to the extent permitted by Graduate School rules, and to the extent that their expertise can contribute to this function. Faculty responsibility for directing master's level students cannot readily be separated from that for directing doctoral students since every doctoral student must get the master's degree as part of this doctoral program.

In addition to the approximately 50 graduate students in the Department, and the approximately 35 undergraduate physics majors, this faculty "services" approximately 1000 students in other departments. This load does not, however, unduly encroach upon the time of those members of the faculty who are directing graduate students.

The relatively high faculty turn-over reported in 1967 is no longer a problem. There is good faculty stability now.

The Department has three clerical-secretarial people, two of whom are supported by the College of Liberal Arts, and one by the Graduate School.

Since neither faculty nor students complained about the adequacy of this clerical assistance, it is apparently satisfactory.

There is no reason to question the qualifications of the faculty members who are directing graduate students. They are productive scholars who publish in the best scholarly journals. The Department has recently set up a ten-member graduate faculty committee which is focussing its efforts exclusively upon the growth in the strength of the Department's graduate effort.

To be admitted into the Department's graduate program, an applicant must have achieved at least a C-plus undergraduate grade average and must be favorably recommended by three of his/her undergraduate instructors. The Department provides financial assistance to approximately 25 graduate students in the form of assistantships, scholarships, and fellowships. Of the approximately 50 graduate students in the Department, 15 are currently working for the doctorate. In the past five years, the University has awarded the Ph.D. degree in Physics to 10 students. The doctoral students in the Department are competent, professional, and dedicated. The faculty seems to be very successful in instilling an enthusiastic interest in scholarly study and research into its students. The students speak well of most of the faculty and they are pleased with the graduate education they are getting. Despite the much-publicized surplus of Ph.D.'s in Physics, Ph.D. graduates from Howard have no difficulty finding positions in which they can make use of their training.

The Department has a two-fold goal - (1) to provide a graduate program which will give students educational opportunities and training equivalent

to, or better than, that of any institution in the world, and (2) to accommodate a large number of black minority students desiring to study graduate physics. It is evident that the Department is consciously striving to achieve this goal. The five-year program objectives of the Department are:

(1) to increase course offerings and research in astrophysics, solid physics, atomic physics, and low energy physics.

(2) To increase the number of assistantships, fellowships, and scholarships from 25 to 30.

(3) To increase the number of graduate students enrolled from 50 to 100.

(4) To obtain a new physics building.

These ambitious objectives will probably be difficult to reach.

Graduate course offerings, and doctoral research opportunities, appear to be adequate to meet the needs of students. Through the D.C. Consortium of Universities, students have access to courses in other local universities which are not offered at Howard. Since the last report on the Department's graduate program (in 1967), it has dropped the foreign language requirements from its curriculum. In doing so, it has done what many graduate departments of Physics in the country have done during the past ten years. The language requirements are no longer found to be meaningful.

COMMENTS

What makes the impressive research accomplishments of the faculty admirable is the rather difficult conditions under which research has to

be done. Support services are, by and large, poor. The first of these is the sadly inadequate library service. The Departmental library, which houses recent books and recent issues of learned journals, is not staffed. As a result, many items are missing, either because they have been taken out and never returned, or have been stolen. Both faculty and students mentioned repeatedly that this is a source of both hardship and annoyance to them. Were it not for the relative proximity of the well staffed, and well stocked, libraries of other universities in the area which students and faculty are permitted to use, inadequacy of library would be an almost insurmountable obstacle in the conduct of research. Interlibrary loans cannot serve as a substitute for a seriously inadequate local library.

Another serious problem is the lack of adequate University building maintenance services. For example, there are bad leaks in the roof of the Physics building which have been left unrepaired for a long time despite repeated requests by the Chairman of the Department that this be done. This is especially serious in that it could result in irreparable damage to costly research equipment.

Faculty members report that there are unconscionably long delays in the processing of purchase orders for supplies and equipment needed in their laboratories. One faculty member reported that he has to resort to purchasing government surplus equipment with his own money to meet his research needs, and thus avoid long delays in doing his research.

The shortage of space reported ten years ago is still a serious problem. Some of the research laboratories are too small for the equipment

and people they must accommodate. Classroom space is in such short supply that some classes must be held in faculty offices.

RECOMMENDATIONS

I. To the Department:

1. Do something immediately to get competent staff for the Physics library.
2. Consider, in so far as this is in accord with Howard University's mission, recruiting graduate students from a broader scope of undergraduate colleges. This would very likely bring benefits both to the students and the faculty.

II. To the University:

1. Give immediate attention to the rather serious failures in the maintenance of the Physics building.
2. Streamline the purchasing process.
3. Build a building for the Physics Department as soon as possible, or provide adequate quarters and facilities in an existing modern building. It is doubtful that the present building can be properly renovated, and brought into conformity with the D.C. building code, for less money than it would cost to construct a new building.

CHEMISTRY

A. FACULTY

Comment: The Chemistry faculty and their research interest compares very favorably with some of the strongest graduate schools in the midwest.

Interviews with about half of the faculty revealed significant scholarly attitudes and interest in students.

(NOTE: Three additional faculty will be hired for tenure slot positions in the near future.)

B. EQUIPMENT

Observation: The department has well-equipped research laboratories in the fields of Physical Chemistry, Biochemistry (including Bio - inorganic) and Natural Products. Some of the more specialized instruments include UV - Visible, IR, Laser, Raman Spectrometers, equipment for magnetic measurements, gas chromatographic separations, NMR and ESR measurements, C-H analysis, thermodynamic and kinetic measurements. Some of the more highly specialized equipment inlcude a Finnigan GS-MS, HA-100 NMR Spectrometer, Cary 14 Spectrophotometer, preparative ultracentrifuge, DuPont DTA - TGA thermoanalyzer, Perkin-Elmer 621 1R Spectrophotometer, PAR Polarographic Analyzers and a PDP/8 Computer. Terminals to the IBM 360/158 are available daily from 8 a.m. - 11 p.m. and weekends.

Comment

The research equipment listed above is being used to conduct sophisticated research in a variety of areas. This equipment would compare favorably with some of the strongest graduate schools in the midwest.

C. RESEARCH SUPPORT

Observation: At the time of this survey $1,241,000 in grants were in progress; new grants amounted to $650,000; and grants totalling $1,085,000 were applied for. These grants have been received from a variety of Federal agencies, including ERDA, NIH, NASA, NIGMS, WSSC, NSF, AEC and business organizations, such as American Can and Upjohn.

Comment

In 1975, the total research support for the Department was about $200,000. The dramatic increase shown above is excellent evidence of a strong graduate program that is making an active, up-to-date research contribution to the field of Chemistry.

D. FACILITIES

Observation: The Chemistry Department is housed is a five-story building with a net floor area of approximately 58,000 square feet. The present building is about 35 years old, and is very crowded. However, a $2,000,000 remodeling program is underway which will result in modern and well-designed research and student laboratories, classrooms and faculty offices.

Comment

The $2,000,000 renovation will not add any square feet to the Chemistry building. The need for additional space is acute. The Chemistry Department Chairman has estimated that at least 80,000 square feet are needed. There is a possibility that the Chemistry Department will acquire a wing of the old hospital building. However, there are two disadvantages to this: (1) the wing is a half-block from the Chemistry building and (2) the old

hospital is to be demolished not later than 1985.

E. LIBRARY

Observation: The library has 12,000 volumes, 121 periodicals (journal subscriptions) and 100 reference volumes. In addition, Howard University is a member of a consortium of Washington, D.C. universities which share library resources. The Chemistry department has a full-time librarian with appropriate student assistants.

Comment

The graduate students interviewed said the area libraries were excellent. There was some unhappiness because (1) graduate students were no longer permitted to have individual keys to the library (too many missing books) and (2) the university library system has taken over all departmental libraries and the head librarian determines the budget for each departmental library.

F. STUDENT FINANCIAL AID

Observation: The following financial assistance is available for students: (a) 26 Graduate assistantships, (b) 2 NSF traineeships, (3) 9 NIH traineeships, (d) 4 Research grants, (e) 2 Bio-med traineeships, (f) 3 Terminal fellowships.

Comment

The good spread of financial support for students provides the opportunity for both classroom and research experiences.

G. REQUIREMENTS FOR THE DOCTOR OF PHILOSOPHY DEGREE

Observation:

a. Courses All students are required to take the core courses unless exempted by examination. The minimum credit requirement for the Ph.D. degree is 72 hours beyond the B.S. degree of which 48 hours must be pursued in course work and 24 hours in dissertation research. The student's courses must be approved by an advisory committee.

b. Examinations Students in the Ph.D. program are required to take and pass (1) three written divisional comprehensive examinations (2) an advanced written comprehensive examination in the student's field or speciality and (3) a final oral examination based primarily on the student's research.

NOTE: The passing of this oral and the final acceptance of the dissertation by the Graduate School fulfills all the requirements in the Ph.D. in Chemistry.

c. Scholastic Requirements A cumulative average of 3.00 (B) is required for graduation. Courses with grades below B may not be submitted for meeting course requirements for the degree. A student who accumulates more than fifteen hours (inclusive of the M.S) below B in the Ph.D. program is dropped from the graduate school.

d. Foreign Language Requirements Two foreign languages are required. A reading knowledge of German, French, Russian, Japanese or Chinese may be satisfied by taking (a) Princeton Standardized Examination minimum score 375 or (b) an examination adminstered by the Foreign Language Departments in materials submitted by the Chemistry Department.

e. Admission to Candidacy Admission to candidacy may be requested after

successful completion of parts a through d (above) in addition, the student must be certified by the department or the Graduate School for competency in English. He must also be recommended by the Department and approved by the Graduate Council (elected by the Graduate School from the five divisions of the college.)

f. Teaching requirements All students pursuing the Ph.D. degree must participate in some form of teaching activity which could include a year as a teaching assistant.

Comment

The requirements for the Doctor of Philosophy Degree are as rigorous as you would find in any high quality graduate school.

g. Requirements for admission to graduate school

Observation: To be admitted to the Graduate School to study Chemistry, a student is required to have a B.S. in Chemistry from a college with an approved program. The student should have as a minimum a 3.0/4.0 or "B" average in Chemistry. Occasionally consideration is given to students with a C+ average in Chemistry. In addition to transcripts, three letters of recommendation are also required.

Comment

It is suggested that the A.B. degree be included and a mathematics requirement be included as a strong mathematics background is absolutely essential for success in modern chemistry.

h. Publications

Observation: Thirty-three publications appeared for the academic year. Sixteen publications are in press.

Comment

This is a very respectable publication record.

i. Administrative Support

Observation: The Chairman of the Chemistry department indicated that administrative support of the graduate department of chemistry was "excellent."

Comment

Strong administrative support is essential to building and maintaining a strong graduate department.

j. Interviews with graduate students

Observation: All five student interviewed gave the department high marks for (1) the relevance and quality of instruction; (2) the relevance of the requirements for the Ph.D. degree; (3) the number of research options; (4) the overall administration of the program; and (5) program support including the library, computer and research facilities. They were particularly complimentary about the harmonious relation between faculty and students.

They were very critical regarding the long time (in some cases up to one-year) required to obtain essential research materials (such as chart papers). They said that requisitions for supplies get lost and the business office is so tardy about paying bills that companies will not accept Howard's credit and are requiring cash.

Another complaint was that the responsible officials do not act promptly to (1) install equipment or (2) repair equipment.

SUMMARY COMMENT

This is a strong department of Chemistry administered by a hard-working completely dedicated and thoroughly capable chairman. The staff is doing an excellent job of training chemists.

ZOOLOGY

The Department of Zoology at Howard University offers the Doctor of Philosophy degree with areas of research specialization in cytology, ecology, endocrinology, genetics, parasitology, physiology, protozoology, and developmental biology.

The general objectives of the graduate program are best expressed by the department chairman, Dr. Winsted A. Anderson. A major objective of the graduate faculty is to train research scholars in areas of fundamental biology through formal and informal instruction. The faculty believes that a through grounding in the life sciences is essential for understanding and seeking solutions to many pressing problems in the biomedical sciences. The faculty, therefore, offers core courses with the following objectives:

(1) to provide background information fundamental and essential to subsequent concentration in advanced course;

(2) to stimulate and motivate students to pursue careers in the biological and medical sciences;

(3) to encourage original investigation in basic and applied biological research; and

(4) to develop circumspective thinking in the minds of students through training in the life sciences.

In summary, therefore, this department is obligated to train well-rounded biologists, to develop research skills and expertise in critical areas of the life sciences, and to prepare them for careers in teaching,

research, and for professions in other areas of human concern."

1. Graduate Faculty

The graduate faculty is comprised of 7 professors, 2 associate professors, 1 assistant professor and 1 instructor. As a group the graduate faculty are well qualified professionally. All are actively engaged in research and most have pre-doctoral students doing thesis research under their direction. Graduate faculty research productivity for the period of 1975-1976 included the publication of 27 papers. Each faculty member had at least one publication and several had three or more.

All graduate faculty have obligations to undergraduate teaching. This places more strain on some faculty than on others since teaching loads in graduate courses are not equally shared. This is due primarily to difference in student interest among various course offerings. The department chairman has taken steps to equalize total teaching loads for graduate faculty by increasing undergraduate teaching responsibilities for faculty members with very light graduate teaching requirements, i.e. with few or no students enrolled in their courses. This has understandably created a degree of concern among affected faculty, who feel that preparation for a course taught to a few students is as demanding as preparation for a larger class.

Eight graduate faculty members received some form of research and training grant for the 1976-77 year (see following).

INVESTIGATOR	SOURCE	SUPPORT
Anderson	Population Council	22,000
	NCI	38,500
	Cancer Center (Howard)	10,000
Bauks	Graduate Science Council (Howard)	3,000
Eckberg	NSF	20,000
	Graduate Science Council (Howard)	5,200
	Biomedical Science (Howard)	11,500
Frankel	Biomedical Science (Howard)	10,000
Hollis	Graduate Science Council (Howard)	6,000
Pipkin	NIH	22,000
Lee	Graduate Science Council (Howard)	6,000
Walker	Biomedical Science	19,500
		173,700

Comment

Extramural funding is somewhat less than one might expect. Considering the deplorable lack of equipment and facilities the wonder is that they are funded at all.

2. Graduate Curriculum

The present Doctoral Program in Zoology at Howard reflects a traditional view of graduate study in science. All candidates for the Doctor of Philosophy degree must spend at least four regular semesters of residence in the Graduate School. To obtain full residence credit for any semester, candidates must complete satisfactorily at least nine credits on the graduate level each semester.

At least three years of work must be devoted wholly to graduate study and investigation with suitable facilities and under proper supervision. Students are required to attain general proficiency in zoology and in a minor subject in a related field of natural science. All students seeking the Doctor of Philsosphy degree must have completed all course requirements of the master's degree program in Zoology. They must also pass one foreign language examination as well as the qualifying examination, submit an acceptable dissertation, and pass the final oral examination.

The doctorate is granted only upon evidence of recognized ability for independent research as demonstrated in a thesis based upon significant and sustained research and not merely on the sum of semesters in residence and courses completed.

Formal instruction is offered in all areas of specialization totalling 30 different courses and seven seminars. Students may elect to do research under the guidance of any of the eleven graduate faculty members.

Comment

Requirements for the Doctoral degree are typical for a traditional

program. Obviously, the needs of breadth and range in course work are met. Student opinion of graduate course content and teaching competence is good to excellent. However, research facilities are severely limited, qualitatively and quantitatively. Graduate faculty as a group are over-taxed with undergraduate as well as graduate teaching responsibilities.

Currently there is an attempt to change the major emphasis in the graduate program in Zoology. Leadership in effecting this change is provided by the Zoology Chairman. The following information with regard to this new program is taken from a training grant proposal submitted to NIH by the Chairman.

A group of 20 faculty scientists have developed an inter-departmental, multi-disciplinary graduate training and research program in Cellular and Molecular Biology. This group includes biochemists, microbiologists, immunologists, geneticists, and cellular and developmental biologists. The proposed program will support research and training at the predoctoral level for qualified graduate students. The major objective of the program will be to train graduate students for teaching and research positions in the areas of cellular and molecular biology. Predoctoral students will participate in the program through traditional graduate programs in the Departments of Zoology, Chemistry, Microbiology, Biochemistry, Physiology, and Medicine. In addition, to meet the requirements of the specific graduate program, the trainee must meet specific requirements in course work and research experiences outlined by the Cellular and Molecular Biology training program. The trainee will participate in a weekly seminar program and

conduct guided and independent dissertation research under a faculty scientist in the program.

The multi-disciplinary program is designed to break down traditional departmental boundaries, making available for the first time in an organized program, the skills and technical expertise in various departments which will enhance technical, experimental and intellectual interchange among research scientists and trainees. Above all, the establishment of this multi-disciplinary training program will produce a core of well-trained minority scientists qualified to teach and conduct research in the area of cellular and quantitative molecular biology.

The research and teaching facilities are located in a group of six (6) buildings which are in easy walking distance of each other. Biochemists, Biophysicists, Microbiologists, Immunologists, and Cell and Molecular Biologists in the program conduct ongoing research and have active laboratories in these facilities. Trainees will be located in laboratories and offices in specific departments under the direct observation and guidance of a faculty sponsor who is a part of this program.

Predoctoral trainees will be selected from undergraduate programs at Howard University, other minority schools throughout the country, and other universities. They must meet all the requirements for entry into the Graduate School and into the specific department. Trainees must demonstrate in their collegiate record a commitment and aptitude for graduate study in the areas of cellular and molecular biology. Support will be for a period of up to 4 years, after which the trainee is expected

to apply for individual fellowship support. Upon the completion of the program, the trainee will be capable of conducting independent research and teaching in some area of cellular and molecular biology in a basic science department and/or in a research institution.

Comment

An increased emphasis on so-called modern molecular biology must mean a decrease in attention paid to "classical" zoology. To no one's surprise, plans for this move are met by some resistance as would be expected when prerogative is diminished or changes hands.

However, it is felt that the change in emphasis for graduate training can be justified if Howard wished to place its doctoral graduates in more prestigious positions. The Chairman points out that Howard has in the past provided good, traditional training in zoology. This classical approach has in recent years limited the brightest Ph.D. graduates to careers in less prestigious institutions. In this manner dated views in biology continue to be taught and further exacerbate the intellectual lag of small colleges behind the larger universities.

3. Student Enrollment

The Department of Zoology currently has 29 graduate students enrolled in the Ph.D. program (33 are pursuing a Master's degree). Not all are actively doing research because of course work requirements. The graduate faculty size would be adequate to handle this load provided undergraduate teaching loads were limited.

Admission policies have been stated above (see section, Graduate

Curriculum). Standards for admission to graduate work appear adequate. However, Howard University's commitment to minority education at the graduate as well as undergraduate level encourages graduate departments to accept students who are not as well prepared as they should be.

Student aid is in the form of 13 fellowships, 1 teaching assistantship and 2 teaching fellowships distributed among 62 graduate students. Stipends are $4,493 per year. Both forms of support go to the higher academic achievers, leaving a considerable number of students in the position of obtaining income through part-time jobs and/or loans. Students complained that even when supported by fellowships they were often required to hold part-time jobs to make ends meet in Washington. Financial worries and enforced part-time occupation compounded do not make for a positive learning environment.

Student opinion of the program is based on discussions with a group of twenty or so individuals composed of students at different points in their graduate career. No faculty were present at the meeting. The following statements summarize student feeling.

a. Graduate courses are generally well taught. Degree of "difficulty," i,e., scholarship demands, is comparable to that of good graduate schools elsewhere.

b. Faculty research advisors are generally available when needed and are supportive of graduate students in their research efforts.

c. Students say that equipment and supplies necessary for good research are seriously inadequate. Space and support facilities

(a decent library nearby) are likewise inadequate.

d. Financial support is limited, and barely adequate at best for those receiving stipends. Students felt they would be better scholars if not under so much financial strain.

e. Students are supportive of faculty efforts and the administration of the program. They are optimistic about job opportunities for well-trained minority scholars.

4. Support Facilities for Docotral Program

Zoology shares a twenty-two year old building with Botany and Geology-Geography. Space available for Zoology was originally intended for 8 faculty, 30 graduate students and 400 undergraduates.

All groups are now doubled in number.

Various make-shift arrangements have provided uncomfortable, inadequate space for graduate students in former walk-in refrigerators, balance rooms, etc. Alterations have commonly been made by faculty and students with little help from Howard University maintenance people.

Faculty and graduate research is often carried out at one end of a laboratory also used by undergraduates. Equipment is limited and school maintenance or repair virtually nonexistent. Some excellent equipment is available. A late model scintillation counter and spectrophotometer have been purchased. Several ultracentrifuges are in service. The Graduate Dean has been very supportive on behalf of the sciences in their attempts to expand and update their equipment and facilities.

Zoology has a small library-reading room. It is clearly inadequate.

University library facilities will be discussed later.

Comment

Equipment, supplies and space are in severe shortage. In order to attract and hold good faculty interested in research productivity this shortcoming should be corrected.

PHYSIOLOGY AND BIOPHYSICS

The Department of Physiology and Biophysics was authorized in 1958 to initiate a doctoral program. The general objectives of this program are as follows:

"To provide a center of academic endeavor for the development of competent teachers and well qualified investigators in physiology and related disciplines with special emphasis to increase the number of minority group scientists in this area. To provide an adequate atmosphere for developing the thinking modes and processes of an individual committed to research. To develop attitudes of inquiry, perseverance, objectivity, and a respect for the principles of logic as applied to the scientific method. To create respect for the teaching process as a powerful instrument for communication and development of ideas and talent. To instill the philosophy that learning is a perpetual process that does not end with the acquisition of a degree."

In order to achieve the objectives outlined, the department has set the following five-year goals. The department projects that the graduate program will produce well qualified Ph.D. physiologists at a minimum rate of 4 per year over the next five years beginning in 1977. Recognizing that any graduate program must be supported by research, the faculty is committed to increasing substantially the number of "on-going" supported research programs within the department. In order to develop an academic, intellectual center and an atmosphere for developing the thinking modes of an individual, adequate sources of current information must be conveniently

available to graduate students. Consequently, the department intends to establish a physiology departmental library which will serve as a resource for periodicals and reference books in physiology and related areas. In addition the department projects the development of a centralized instruments recource and audio-visual repository."

1. Faculty

The Department of Physiology and Biophysics has 17 faculty, 4 professors, 7 associate professors and 6 assistant professors, of these 14 are full-time. Half of the junior faculty are recent graduates from the Howard Doctoral Program in Physiology and Biophysics. The Graduate School Dean holds an appointment in the department but plays a small direct part in graduate training.

The teaching load for the faculty in this department is staggering. The Chairman has provided a summary sheet of teaching responsibilities showing an average of 91 contact hours per year per faculty member. This does not include review sessions for medical students, graduate student research direction and course preparation time.

The overload of teaching responsibilities is reflected in a relatively low degree of research productivity. Currently only 2 faculty are supported by extramural funds (Costello and Trouth). Dr. Holloway administers a large training grant (for graduate students) budgeted at $275,000 for 1976-77. Drs. Moolenaar and Trouth are listed as coinvestigators.

Projected increases in faculty size should decrease teaching loads and facilitate increased research productivity. Dr. Costello hopes to

add 5 new faculty over the next 5 years (1977-82). Preference in hiring new faculty will be given to applicants with expertise in areas of physiology that are not presently represented or not adequately represented.

Comment

The faculty of Physiology and Biophysics is clearly overloaded with classroom teaching responsibilities. This is particularly hard on younger members who find it difficult to develop a research program to a point where government funding is possible. Since most will move on to other schools as they pursue a career it is in their best interests to be productive in research. For this reason one can understand whatever ambivalent feelings junior faculty may have about classroom teaching. It is worthwhile pointing out that the department houses a number of its own recent graduates. The exact reason is not known for this but is a matter of some concern. The problem could be absence of job opportunities. At any rate, it is felt that hiring young faculty produced by the same department is not a good general operating policy. It tends to decrease the likelihood of introducing fresh, new ideas into a program of research and teaching, and to further satisfy views that should be challenged. One further point; nothing serves as advertisement of a good program like its graduates. Good Howard Ph.D. physiologists should go elsewhere and in doing so would encourage bright black science students to continue their education at Howard.

2. The Graduate Curriculum

Thee graduate program in Physiology is designed primarily to lead to the Doctor of Philsophy degree. The program requires a minimum of three

years, starting with Stage II; a maximum of six years is allowed for completion. In special circumstances a student may be admitted to pursue a course of study leading to the M.S. degree where that satisfies a special need of the student.

Students who have expressed the desire to pursue a program of graduate study in Mammalian Physiology and who have been approved following their application at the Graduate School will be eligible for consideration. All students are free to apply for admission to the program.

ELIGIBILITY

a. Applicants with a Doctor of Medicine or Doctor of Dental Surgery Degree

b. Applicants with a Bachelor of Science or Bachelor of Arts degree.

c. Applicants who meet the requirements of 1 or 2 above, but do not have the adequate number of credit hours may be eligible for acceptance to make up prerequisites.

Comment

The prescribed curriculum for graduate students in Physiology and Biophysics has been designed to give every student a broad background in physiology. Since many students enter the program with prerequisite courses lacking, time is required to fulfill these needs. For this reason the minimum course work requirement of 38 hours is usually increased [illegible] more course hours. It is believed that this adds up to too much course work. Beyond a point graduate students become disenchanted by further course work and this requirement could be more detrimental than beneficial to their scholarship.

ED 156 001 REPORT OF THE SURVEY OF HOWARD UNIVERSITY: THE GRADUATE SCHOOL AND SELECTED PH.D. PROGRAMS.
2 OF 2 OFFICE OF EDUCATION (DHEW), WASHINGTON, D.C.
77 115P.

The position of the faculty is certainly understandable. Graduate students, while bright enough, are often products of outdated undergraduate training. They enter the program short of information and with little appreciation of how and where to get it. Nevertheless, it is questioned whether the current curriculum best meets students needs, or best utilizes faculty time.

As a possible alternative, the following is suggested:

a. Remove Medical Physiology as a year long required course and replace it with a course in physiology specifically oriented toward graduate student needs. Most Medical Physiology courses are not designed for potential scholars. Stress is laid on facts, not on theories; on what experimentation reveals, not on methods of experimentation. A total of 10-12 credit hours should be adequate.

b. The Speciality course requirement should be reduced to between 12 and 15 hours total (4-5 courses).

These changes would reduce the total course work load to approximately 25 hours but would more likely produce scholars than students. Whatever demands on faculty time would be created by offering separate courses for graduate students would be compensated by an overall decrease in graduate teaching responsibilities.

3. Student Enrollment

The present student enrollment in the Department of Physiology is 23. The maximum enrollment as determined by the department is 30. The following represents a projected estimate of student enrollment for the period 1977-82, along with projected admissions and graduates.

YEAR	NEW ADMISSION	GRADUATES	TOTAL
1977	5	3	25
1978	5	3	27
1979	5	4	28
1980	4	5	27
1981	5	5	28

The following specific recommendations have been made by the faculty in order to enhance the existing Ph.D. program.

a. Retention Programs: There should be a visible program within the department to assist the student in every way - once he/she has been admitted to a degree program. The assistance might take many forms including formalized tutorials. Admission to a program within the department might be construed as a moral commitment to insure that the student reaches his goal. Accordingly, only those applicants who, by past performance, have demonstrated that they have a reasonable chance to succeed should be admitted to the program.

b. Early identification of talented students: Talented students should be identified early and brought into the program after two or three years of college, e.g., a student might complete the requisite science courses in two years and become eligible for admission to the graduate program. A course of study could be designed whereby the student would obtain the undergraduate degree while studying for an advanced degree. In this connection, the possibility of establishing an M.D.-Ph.D. should be explored.

c. Maximum 5 year program: There should be a maximum of 5 years to obtain the Ph.D. degree. Students should not be admitted to the program with course deficits. If such application are presented, the applicants might be advised to satisfy the entrance requirements before his/her application is considered. Such advice must be construed as a commitment.

ADMISSION PROCEDURES:

1. The student must apply for admission to the general Graduate School.
2. The student must provide a letter of intent, a transcript, and three letters of reference to the Graduate School.
3. The Graduate School decides whether the student meets the minimum criteria for acceptance.
4. The Graduate School contacts the department to determine if the department is willing to accept the student for graduate study.
5. The department evaluates the student's past record, interviews the student where possible and then reaches a decision (to facilitate this step all students must provide a facsimile of their transcript, letter of reference and letter of intent to the Department of Physiology).
6. The department notifies the Office of Admissions of its decision. The Office of Admissions notifies the students accepted for graduate study.

Comment

Graduate students in the Department of Physiology and Biophysics are drawn from the same pool of undergraduates as those in Zoology and Pharma-

cology. A commonly expressed opinion was that course demands are overwhelming. Students also complained that very little direction was offered by faculty advisors in choice of courses, seminars and matters in general relating to scholarship.

Claims were made that little effort is made help poorly performing students (usually first year students) to improve. Agreement on this point was particularly strong among students of low standing in the program.

There are 18 graduate student fellowships carrying stipends of $3,900 per year plus remission of tuition. These monies are supplied by the MARC training grant administered by Dr. Holloway.

Total graduate student enrollment is 23, 18 supported students is an excellent record. However, a very recent phone conversation with the department chairman has revealed that firm support for the training program ends with the current year and the level of continued support is an unknown quantity.

4. Program Support

Like Zoology, this graduate program has been chronically short of space, equipment and supplies for graduate and faculty research. Part of the problem undoubtedly results from the fact that, while physiology departments in other universities were expanding their programs during the period of easy extensive government funding (1960's), this department lay in relative torpor. Expensive equipment, easily obtainable for graduate training during those years, has not been purchased. The notable exception to this state of affairs is seen in the excellent, well-equipped,

laboratory of Dr. Hawthorne, an internationally known cardiac physiologist.

Present and projected space need (as described by the department faculty are listed below).

AREA	PRESENT SPACE (SQ. FT.)
Pulmonary Laboratory	200
Endocrinology Laboratory	2,000
Nuerophysiology Laboratory	1,300
Cardiovascular Laboratory	1,700
Environmental-Renal Laboratory	600
Muscle Laboratory	126
Graduate Student Office	600
Electronic Shop	200
Faculty Office	1,400
Administrative Office	300
TOTAL	8,426

Projected need after 5 years

YEAR	ADDITIONAL SPACE NEEDED (SQ. FT.)
1977-78	1,000
1978-79	1,200
1979-80	500
1980-81	500
1981-82	---
TOTAL	3,200

The additional space needed is based on the projected student faculty

and staff increase as well as immediate needs. Of the additional space needed, 25% is presently neded in pulmonary and 25% in Environmental-Renal. Ten percent is needed to allow for expansion of the electronics shop in order to service better the current and projected teaching program. Fifteen percent of the space would be utilized by the Cardiovascular area, and approximately 25% for faculty offices. It is believed that with the above projected increases the program would continue to be successfully implemented.

Two new faculty will be added to the staff this fall. At present there is really no available space for them other than that created by sharing already cramped quarters with other department members. The fact that new faculty space needs will be limited, due to the absence of necessary equipment, is a true but unappealing point to be made.

Graduate students, as in Zoology, are stuck in nooks and cranies in laboratories, hallways, etc. There is no space set aside for sole use by graduate students for research and study areas.

Physiology has no department library. The medical school library meets minimal standards of journals and texts used by faculty and students in phsiology but space again is a premium. Many back-dated journals are kept in University archives, this limits easy access for those wishing to use them.

Comment

Physiology and Biophysics is housed in the medical school and thereby seems to enjoy adequate janitorial and maintenance services. Equipment and supply needs are as inadequately met as in Zoology. Space for new faculty is nonexistent.

PHARMACOLOGY

The Department of Pharmacology is one of the seven basic science departments which provides Ph.D. programs at the Howard University College of Medicine. Graduate training was established in 1955. Since its inception, the Department has awarded 33 Ph.D. degrees to graduate trainees. Graduates constitute one of the largest resources of minority pharmacologists and toxicologists for schools and research laboratories in this country.

There are four areas of subspecializations in the Department. Its most proficient subspecialities are cardiovascular pharmacology, behavioral and neuropharmacology, biochemical pharmacology, and toxicology.

The Department presents pharmacological education to its students as a continuous undertaking through practice and training, using the following as broad objectives:

1. To teach medical, dental and pharmacy students the principles of drug action, providing the pharmacological basis for the understanding, prevention and treatment of disease processes.

2. To increase the number of minority trained pharmacologists and toxicologists at the graduate level in order to fill the demand for teachers in broad medical education programs, and to fill the need for academic governmental and industrial personnel in research and investigation.

How real is the need for training minorities in the basic Medical Sciences? For the period 1958-71 only 1.3% of the 39,279 Ph.D. degrees in life science were awarded to blacks. At present there are 20 blacks (half of whom are

Canadian) among 2,500 pharmacologists in North America.

Not only is there an underrepresentation of minorities in the area, but presently there exists a national shortage of pharmacologist and toxicologists as well. The major employers of these professionals are universities, Government (F.D.A., Department of Agriculture, N.I.H., U.S. Labor Department, Occupational Safety and Health Administration) and industry. Universities have the largest pool of these professionals. The greatest need is in the Department of Labor and Health, Education, and Welfare who share the federal responsibility for enforcement of the Occupational Safety and Health Act of 1970 which by law requires that safe and health work places be provided for all employees. Pharmacology-Toxicology training is one of the critical professional areas where expertise is needed to carry out the mandates of this act.

1. FACULTY

The faculty consists of 12 full-time and 10 part-time members. In addition to teaching assignments, members are actively engaged in research projects pertaining to cardiovascular, behavioral, neural, biochemical and toxicological pharmacology. Research activity is mainly supported by grants and contract from federal and private organizations. Several faculty members have interdisciplinary research projects involving the Departments of Oncology, Medicine, Radiation Therapy, Radiology, Psychology, Physiology and Biochemistry.

Faculty teaching responsibilities (other than graduate courses) include a Medical Pharmacology course (128 students), courses for dental students

(100) and for School of Pharmacy students (65). Teaching occupies 80% of total faculty effort.

Current research activity is being supported at a level of approximately $140,000 per year. Lack of immediately available space acts to prevent a rapid expansion, but within 18 months, there will be a new Basic Science building and Cancer Center. Upon completion of these buildings, the department shall have approximately 2000 sq. ft. of additional research space and an increase in animal facilities.

Since 1955, the year in which graduate education in the department began, faculty have published well over 500 scientific communications. The high quality of research in the department continued throughout the past year. Productivity is exemplified by 34 scientific communications, including 12 full papers published in leading scholarly journals and 6 chapters in books by members of the department.

Comments

The senior faculty of Pharmacology have excellent credentials as academicians. Most have international reputations. This is exemplified by Dr. Pradhan's appointment to the editorial staffs of two international journals in pharmacology. Another staff member, Dr. Booker, has also served on editorial staffs. Junior faculty members know they are in a good department; this serves as positive stimulus. Faculty morale is good. In frank talks with faculty members, strong support was found for the chairman, with no major points of criticism. Pharmacology is understaffed. The addition of 2 or 3 new faculty would probably correct the situation.

2. The Graduate Curriculum

The general requirement for the admission to the graduate program is a Bachelor of Science degree in Chemistry, Biology or Pharmacy. Special requirements would include undergraduate credits in the following areas:

General inorganic chemistry (1 year)

Organic chemistry (1 year)

Physics: Mechanics, heat, electricity and magnetism (1 year)

General Zoology or molecular biology

Comparative anatomy (1 course - Vertebrate Embryology (1 course)

Admission to graduate work first requires acceptance by the Graduate School. This requires completion of a formal application for admission as well as supplying proper transcripts. Secondly, admission to graduate training in Pharmacology requires approval of the Admissions Committee of the Department. An overall "B" average is a minimum requirement, however, students with a "B" average in mathematics and science courses may be considered. GRE examination must be taken by all candidates for fellowships. The student must score above the 60th percentile.

Joint degree programs in Pharmacology and Medicine require acceptance to the medical school and approval from the Chairman of the Department and the Dean of the College of Medicine. Students who enter the Graduate School first must spend a minimum of two years as graduate students before entering the College of Medicine. Medical students, after spending 1 year in the College of Medicine, may apply for admission to the Graduate School with the approval of the Chairman of the Department and the Dean of the College of Medicine.

Doctoral requirements are formulated on an individual basis by the candidate, his interdisciplinary educational advisory committee and mentor (advisor). However, certain general courses are indicated as being necessary for all participants in the program (where possible, completed during the first two years). In addition to courses by the department, other courses may be deemed required by an educational advisory committee.

Students are expected to spend a minimum of six semesters in residence wholly devoted to graduate study and investigation. Students may be admitted to doctoral candidacy after completing 45 hours beyond the B.S. degree, successfully completing a proficiency examination in English writing and comprehension, and successfully completing the qualifying examination in general pharmacology for the doctoral degree. Proficiency in a foreign language is strongly urged by the faculty. Advanced students are expected to do a minimum of 30 hours in course work.

Comments

Pharmacology has excellent programs in graduate training. The program in toxicology is of special interest since there is no similar program in the Washington-Baltimore area. The pharmacology faculty feel the need for graduate training in this area is acute.

Extra-mural support for the overall graduate programs currently is above $350,000 per year. A training grant (approximately $100,000 per year) terminates June 30, 1978. Funding for the interdisciplinary training program terminated in June (1977). Further funding is uncertain.

The Department of Pharmacology doctoral program is well conceived and is productive. It should be supported vigorously by the administration.

3. Student Enrollment

Present trainee enrollment is 25 full-time and 5 part-time students. Individuals accepted into the program come chiefly from black colleges. However, approximately 40% is divided equally among graduates of foreign universities and American schools having no ethnic affiliation.

Active recruiting is done in order to increase the number of applicants and thereby have the opportunity to select more promising trainees. Currently 40-50 applications per year are screened; 5 to 7 students are accepted.

Admission policy and procedure is as for other departments. Occasionally, students with less than an overall grade of "B" are accepted, provided they appear to be good risks for successful completion of the program.

Eighteen students (of 30 enrolled) receive financial aid in some form. In 1976-77 funds available for scholarships and loans totalled $105,000. University resources accounted for approximately 80% of these monies.

A meeting with approximately half of the student trainee population revealed the following:

a. Students have great respect for the academic qualifications of the faculty, but some of the classroom teaching is poor.

b. Students feel the number of pre-requisite courses is too great. They complain that too much time and effort is spent (on their part) in fulfilling requirements in these background courses.

c. Students claim that there isn't sufficient space for study and for research. Also, more student aid should be available.

d. Group opinion regarding faculty support was somewhat negative. Students felt they were treated to some degree like "orphans," relative to

attention given to medical students. This is particularly so, they said, in the area of formal course work.

Comment

Trainees in this program benefit from exposure to quality research. Poor teaching seems, unhappily, to be part and parcel of the Medical School environment. Given this, and the actuality of their other complaints, students in Pharmacology enjoy the best graduate program of the 3 medical science programs surveyed. Improvements can be made--but are best made by the department itself.

4. Program Support

The Department of Pharmacology laboratories occupy approximately 9,500 square feet of space (within the College of Medicine) all of which have on-going research projects. These laboratories are capable of carrying on most modern techniques in pharmacology, immunology and biochemistry. Specifically, Pharmacology has temperature-controlled column chromatory and electrophoresis, refrigerated centrifuges, Beckham preparative centrifuge, automated liquid scintillation beta and gamma counters, therapeutic X-ray equipment, lyophylizer, spectrophotometers, fluorophometers, fluormeters, complete tissue cultural laboratory with microscopes, cameras and dual chamber CO_2 incubator, computerized and automated parallel sampler analyzer, automated multicolumn gas chromatograph, completely computerized and automated cardio-vascular laboratory and special rooms containing quantities of modern equip-ment for performing acute and chronic experiments in the neuro- and behavioral sciences. Most of the laboratory space was designed as multi-

functional unit for research and teaching in small groups.

The enzyme laboratory (432 sq. ft.) on the fourth floor of the Pre-Clinical Building and the third floor Biochemistry laboratory are available for trainees. A walk-in cold room is also available for conducting protein chromatographic experiments. The enzyme laboratory is equipped with refrigerated centrifuge, colorimeter, spectrophotometer, incubation baths, electrophoresis apparatus and most of the ancillary equipment necessary for this study. Departmental equipment includes a lyophilizer, preparative ultracentrifuge and Cary 14 recording spectrophotometer. The Biochemical and Pharmacology laboratories occuply 1600 sq. ft. of space and are adjacent to the enzyme laboratory of Drs. Rhoads and Morris. Together they total 2035 sq. ft. of space.

The department has a small library-reading room which has a limited collection of journals of immediate interest to the staff. Journal selection should be enlarged, but insufficient funds are budgeted for this by the University.

More non-academic staff are needed to insure success of the programs in clinical courses in Pharmacology, Toxicology and Pharmacy. Individuals best suited would likely be chemists with experience in programmed procedures and automated clinical determinations. These staff members would also ease faculty teaching loads in other laboratory courses.

Increase in student population, both medical and graduate, necessitate duplication of some equipment. Current need can be met by an appropriation of approximately $200,000.

Comment

Pharmacology is, by far, the best equipped and staffed department of the 3 medical service programs surveyed. The support facilities are comparable to those of good programs at other universities.

General Comments and Recommendations

The doctoral programs in Zoology, Physiology and Pharmacology at Howard University are all viable ventures, but at vastly different levels of development. To some degree this may reflect current attitudes of department administrators and staff. More likely the disparity has a historical basis. For example, the graduate program in Physiology was poorly developed during the 1960's; the result is an overworked staff with little in the way of research, equipment, and facilities. Zoology has had an active program for some time, but a traditional (now dated) curriculum works against a facile accommodation to more current ideas in training for the biological sciences. Pharmacology offers students an excellent up-to-date, graduate training experience.

All three programs suffer to one degree of another from space limitation. The problem is much more acute in Zoology and Physiology than in Pharmacology. Renovation of existing space will help to some degree; considering current building costs, additions to existing buildings could prove very expensive and might be difficult to justify solely on the basis of space needs for graduate students.

Lack of suitable equipment (and supplies) is a serious problem in Zoology and Physiology. If Howard University is really serious about its

graduate programs in science they will find a way to correct this. Poorly trained and poorly educated students advertise a school as much as well prepared graduates but not in the desired fashion.

Government sponsored financial support for graduate students is currently in a tenuous condition and could disappear entirely over the next few years. This would effectively end Howard's attempts to produce well-prepared academicians in science unless in-house fellowships funds were provided.

At present Howard provides very little support to graduate programs in Zoology and Pharmacology and no direct support to the Physiology program. There is strong feeling expressed by individual faculty that productive graduate programs are suffering at the expense of continuing other programs which were created a decade ago and which have remained poorly developed or, in fact, are inactive.

Campus-wide library facilities are clearly inadequate for graduate training in biological sciences. Of the three departments surveyed only Pharmacology has an appropriate diversity of journals and up-to-date texts. True, Washington has a number of excellent university libraries (as well as NIH) at the disposal of Howard students. But, as the chairman of Zoology points out, Howard students would spend half of their graduate careers commuting to and from these facilities if they were used adequately.

Certain clerical and maintenance practices should be mentioned. "A member of graduate professors, particularly scientists, feel their work is hampered by needless delays in the .... processing of research project applications to outside agencies. They claim that their applications are

delayed and sometimes lost.....". This is a direct quote from the HEW survey report of June 1967. Apparently this situation has not improved materially in 10 years. Faculty in all three departments stated that ordering supplies and equipment can be a nightmare. They are not certain where the problem lies, but claim that they commonly order and pay for small items personally (and often find if difficult to get reimbursed) because of enormous delays if they use the University channels. Finally, routine janitorial service appears limited in the two programs housed in the Medical School and is negligible in Zoology.

These comments have for the most part stressed problems connected with the departments of the three programs. But surely the programs should continue to exist. Faculty in all departments take their commitment to provide excellent training to minority graduate students very seriously. Under the circumstances, they are succeeding mightly. The improvement necessary to bring these programs to a universally productive state are obvious and the financial requirements realistic. It remains for Howard University to offer more tangible support to improve the status of blacks in American science.

SUMMARY OF CONCLUSIONS

The previous Office of Education report of the Howard University graduate school written in 1967 pinpointed the following areas of concern:

1. Lack of sufficient student financial aid to attract and support quality graduate students.

2. Problem of internal handling of research grants, applications, and contracts which were often needlessly delayed and sometimes lost in the clearance process.

3. Needed strengthening of the graduate school by providing additional staff to assist the Dean.

4. Need for additional faculty and reduction of high faculty turnover.

5. Dilemma of Howard's duel mission to provide compensatory education while at the same time seeking to develop high quality graduate education.

During the ten intervening years the graduate school has made significant progress when measured in terms of additional doctoral programs, faculty, and graduates. The Graduate School has been strengthened considerably with the appointment of Dean Hawthorne who is assisted by four associate deans. The Graduate School administers its own budget which had doubled in size since 1974 from $1.5 million to $3.0 million. The quality of departmental chairman and faculty is high. Faculty salary levels have improved and are now believed to be competitive.

There are, however, nagging problems which still remain. Many of the departments surveyed reported lack of sufficient space as a critical need. The uneven support services from the University - maintenance, clerical, and administrative- continue to plague the faculty, thereby contributing to a considerable morale problem.

Several departments reported a need for additional senior faculty while at the same time were concerned about the need to insure that a reasonable number of high quality junior faculty are hired and retained. The average teaching load is still considered to be too high.

Officials in the Graduate School report that lack of sufficient student financial aid continues to be a major problem. In order to remedy this situation it is estimated that approximately 150-180 additional graduate assistantships worth $5000 each are needed. Six departments have no financial aid whatsoever.

Another source of concern is the quality of the library. It is estimated that to develop this resource into a first quality research library the budget would have to be increased by at least one hundred percent.

It was reported that the bio-sciences need additional modern equipment as most of the basic equipment is at least five years behind current practice. Inherent in this situation is the danger of losing top-quality faculty because of second quality equipment.

Finally, the admission process to the graduate departments remains a problem. Admission to graduate study is not controlled by the Graduate School but is administered centrally by the University Admission Office. In this situation individual departments have considerable responsibility in making admission decisions. As a result, entrance requirements vary significantly from one department to another. In many cases departments are not making significant recruitment efforts.

It is recommended, therefore, that the Graduate School office be given greater authority in all phases of the admission process and be permitted to review and establish minimum standards for admission to graduate study.

Further improvement and development of Howard University's doctoral programs will doubtlessly continue. Graduates from these programs are and will continue to be in demand. Care should be exercised, therefore, in selecting students to enter the various programs. Further expansion to award the Ph.D. in other departments probably should not be undertaken until the requisite resources, funding, and services are provided to the existing doctoral programs.